Site Characterization Report

Oak Mitsui
80 First Street
Hoosick Falls, New York

NYSDEC Site No. 442052

Prepared for:

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May 2020

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CERTIFICATION

For CHA Consulting, Inc. (Responsible for the Soil Characterization):

I, Scott M. Smith, certify that I am currently a NYS registered professional engineer and that the soil characterization portion of this Site Characterization Report was prepared in accordance with all applicable statutes and regulations and in substantial conformance with the DER Technical Guidance for Site Investigation and Remediation (DER-10), and that all activities were performed in full accordance with the DER-approved work plan and any DER-approved modifications.

I certify that all information and statements in this certification form are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law. I, the undersigned, of CHA Consulting, Inc. have been designated by the Site owner to sign this certification for the soil characterization portion of this Site Characterization Report.

CHA Consulting, Inc. was retained by Oak Mitsui to perform a scope of work related to soil characterization only. CHA was the author of sections:

- 1.1
- 2.1, 2.2, 2.3
- 3.1.1, 3.1.2, 3.2.2, 3.2.3
- 4.1, 4.2, 4.3, 4.4, 4.15
- 5.1, 5.2, 5.3, 5.4
- 6.1
- 7.0
- 8.0

(Professional Seal)

Scott M. Smith, P.E.
Printed Name of Certifying Engineer

Signature of Certifying Engineer

May 14, 2020
Date of Certification

083885
NYS Professional Engineer Registration Number

CHA Consulting, Inc.
Company

Associate Vice President
Title

CERTIFICATION

For ERM (Responsible for the Groundwater Characterization):

I, Chris W. Wenczel, certify that I am currently a Qualified Environmental Professional as defined in 6 NYCRR Part 375 and that this Site Characterization Groundwater Investigation was prepared in accordance with all applicable statutes and regulations and in substantial conformance with the DER Technical Guidance for Site Investigation and Remediation (DER-10).

ERM Consulting & Engineering, Inc. was retained by Honeywell to perform a scope of work related to groundwater characterization only. ERM was the author of sections:

- 2.4
- 3.2.4
- 3.2.5
- 4.5, 4.6, 4.7, 4.8, 4.9, 4.10, 4.11, 4.12, 4.13, 4.14, 4.16
- 5.5, 5.6, 5.7, 5.8, 5.9, 5.10
- 6.1, 6.2, 6.4, 6.5, 6.6, 6.7

Chris W. Wenczel, NYS P.G. #000744
ERM Consulting & Engineering, Inc.

Date: May 12, 2020

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF APPENDICES

LIST OF ACRONYMS & ABBREVIATIONS

AMSL	Above Mean Sea Level
ASP	Analytical Services Protocol
ASTM	American Society of Testing & Materials
CAMP	Community Air Monitoring Plan
CFR	Code of Federal Regulations
DUSR	Data Usability Summary Report
ELAP	Environmental Laboratory Approval Program
ESA	Environmental Site Assessment
eV	Electron Volts
GC/MS	Gas Chromatograph/ Mass Spectrometer
GPR	Ground Penetrating Radar
HDPE	High Density Polyethylene
ICP	Inductively Coupled Plasma
IDW	Investigation Derived Waste
MS/MSD	Matrix Spike/Matrix Spike Duplicate
NYSDEC	New York State Department of Environmental Conservation
NYSDOH	New York State Department of Health
NYSDOT	New York State Department of Transportation
PCB	Polychlorinated biphenyl
PFAS	per- and polyfluoroalkyl substances
PFOA	perfluorooctanoic acid
PFOS	perfluorooctane sulfonic acid
PID	Photoionization Detector
PPE	Personal Protective Equipment
PPM	Parts Per Million
PVC	Polyvinyl Chloride
REC	Recognized Environmental Condition
SCG	Standard, Criteria, and Guidance
SVOC	Semivolatile Organic Compound
TAL	Target Analyte List
TCL	Target Compound List
TCLP	Toxicity Characteristic Leaching Procedure
TOC	Total Organic Carbon
USEPA	United States Environmental Protection Agency
UST	Underground Storage Tank
VOC	Volatile Organic Compound
µg/Kg	Microgram per Kilogram
µg/L	Microgram per Liter
mg/Kg	Milligram per Kilogram
mg/L	Milligram per Liter

1.0 INTRODUCTION

Oak Mitsui Technologies, LLC (Oak Mitsui) retained CHA Consulting, Inc. (CHA) and Honeywell International Inc. (Honeywell) retained ERM Consulting & Engineering, Inc. (ERM) to undertake certain investigations and jointly prepare this Site Characterization (SC) Report for the Oak Mitsui property located at 80 First Street in Hoosick Falls, New York (Site). The location of the Site is shown on Figure 1.

Oak Mitsui entered into an Order on Consent (Order) with the New York State Department of Environmental Conservation (NYSDEC) for the Site on September 8, 2017. The Order required the performance of a SC for the Site.

Oak Mitsui performed the soil component of the SC while Honeywell agreed to perform the groundwater component of the SC under an Addendum to the June 3, 2016 Order on Consent and Administrative Settlement Index Number CO 4-20160415-79 dated November 13, 2017.

The Site has been assigned Site No. 442052 and classified as a "P-Site" (sites that have the potential to be listed on the Registry of Inactive Hazardous Waste Disposal Sites) within the NYSDEC State Superfund Program.

The primary goals of the Order are to appropriately characterize the soil and groundwater quality at the Site, and implement any necessary remedial work related to on-site contamination, including any necessary Interim Remedial Measures (IRMs).

Prior to commencement of SC activities, CHA prepared a *Site Characterization Work Plan* (Work Plan), dated April 2018, that outlined the procedures and protocols to be utilized in conducting a scope of work that would provide the necessary field data to evaluate soil quality at the Site. ERM similarly prepared a Site Characterization Work Plan - Groundwater Investigation, dated 12 July 2018 to evaluate groundwater quality at the Site.

The Work Plans were prepared based on discussions between Oak Mitsui, Honeywell and the NYSDEC, and in accordance with *DER-10*/*Technical Guidance for Site Investigation and Remediation,* issued by the Division of Environmental Remediation (May 2010). The Work Plans were approved by the NYSDEC in its letters dated April 30, 2018 and August 30, 2018, respectively (Appendix A).

A second phase of the groundwater characterization was proposed in ERM's Geologic Boring and Monitoring Well Location Plan, dated 1 May 2019 that was approved by NYSDEC in its letter dated May 8, 2019.

On October 10, 2019, a work plan Ortho and Thermal Imaging of Portions of the Hoosic River Using Drone Technology in NYSDEC-required format was submitted to NYSDEC for approval. The purpose of this work was to identify river shoreline temperature anomalies that potentially represent groundwater discharging the Hoosic River. The work was approved by NYSDEC on October 29, 2019.

This report describes the activities undertaken as part of the SC and presents the findings of those activities. Conclusions and recommendations regarding the site characterization findings are also presented.

1.1 REPORT ORGANIZATION

This Report is organized as follows:

- Section 2 summarizes the Site background
- Section 3 summarizes the Site setting and physical characteristics;
- Section 4 summarizes the SC activities and methodologies;
- Section 5 summarizes the results
- Section 6 summarizes the findings
- Section 7 presents the conclusions and recommendations.
- Section 8 includes references

2.0 SITE BACKGROUND

2.1 SITE DESCRIPTION

The Site consists of approximately 7.5 acres and is located in the Village of Hoosick Falls within Rensselaer County, New York. The Site is situated on the southern bank of the Hoosic River and is bounded to the east by the Pan Am Railroad line and to the south by residences. The Site is comprised of three (3) parcels, Tax Map Nos. 27.14-7-2, 27.14-7-3 and 27.14-8-19. According to the February 2018 Zoning Map of the Village of Hoosick Falls (Barton and Loguidice, D.P.C.), parcels 27.14-7-3, 27.14-8-19, and the northern portion of parcel 27.14-7-2 are zoned Industrial; the southern portion of parcel 27.14-7-2 (the parking lot across First St) is zoned Commercial-Industrial; and parcel 27.14-7-2 (located on the east side of the railroad tracks) is zoned Residential.

The former Oak Mitsui on-Site operations included the production of copper foil; however, between 2014 and 2015, operations at the Oak Mitsui facility ceased and, in the summer of 2017, the on-Site buildings were demolished. The former building foundations were left in place. The Site is currently vacant and is surrounded on three sides by a chain link fence for security, with the railroad on the fourth. An aerial image showing the property boundaries is provided as Figure 2.

2.2 SITE USE HISTORY

According to Sanborn Fire Insurance maps, the subject Site was historically utilized for industrial purposes dating back to the late 1800's. Previous operations included a coal gas manufacturing facility (Hoosick Falls Gaslight Co., then Fidelity Gas Co.) from at least 1884 to at least 1910 on the southwestern portion of the Site and a foundry, a machine shop, a paper mill machine manufacturing facility (Nobel and Wood Machine Co.) from at least 1910 to 1976 on the northeastern side of the property. Oak Mitsui has occupied the Site since 1976 and the primary business of Oak Mitsui has been the manufacturing of electrodeposited copper foil.

From 1977 to 2001, the Site was used for high-volume manufacturing of copper foil and administrative offices. From mid-2001 to 2015, the Site was used for administrative offices and other activities as follows:

- From 2005 to 2010, the Site was used for pilot scale (research and development) copper foil electroplating. This process utilized some of the copper foil manufacturing equipment that had remained at the Site from the high-volume manufacturing period.
- From 2003 to 2015, an Oak Mitsui subsidiary, Oak Mitsui Technologies LLC (OMT) produced FaradFlex products at the Site. FaradFlex is produced by using heat & pressure to

bond two pieces of adhesive coated copper foil to either side an insulating film. The adhesive coated copper foil was purchased from suppliers in Japan and Malaysia. The insulating film was also purchased from overseas suppliers. A large heated hydraulic press was installed along with other sheeting & collating equipment to manufacture this product.

- In 2015, the FaradFlex manufacturing operations were moved to Malaysia. The remaining administration staffs were moved to leased office space at 8 John Street, Hoosick Falls. Oak Mitsui ceased plant operations, and in the summer of 2017, Site buildings were demolished.
- During the time Oak Mitsui was in operation, arsenic and copper were used in the manufacturing process. Chlorinated solvents were only used in nominal quantities and per- and polyfluoroalkyl substances (PFAS) are not known to have been used at the Site.

2.3 PREVIOUS INVESTIGATIONS

CHA completed a limited subsurface environmental investigation (Phase 1 and Phase 2 Investigation) at the Site in 2016. The objectives of the investigation were to evaluate subsurface soil and groundwater conditions beneath areas of former manufacturing operations, general chemical storage, hazardous waste storage and certain building features (i.e. trenches, sumps). The investigation was completed to assist in determining the future use of the Site and the possible need for remediation during or after building demolition. Samples were analyzed for a variety of parameters including metals, volatile organic compounds (VOCs), semi-volatile VOCs (SVOCs), and polychlorinated biphenyls (PCBs). The findings of the investigation were presented in CHA's *Phase 1 and Phase 2 Investigation Report*, dated February 23, 2017, and are generally summarized below:

- The investigation identified metals contamination in the shallow soils located beneath the former on-Site building and surrounding areas. The detected metals concentrations were attributed to on-site operations and historical industrial uses dating back to the late 1800's. In addition, low levels of SVOCs were also detected in the shallow soils in limited areas of the Site. The SVOC concentrations were attributed to the historic fill that was observed in the subsurface during the investigation.
- The results indicated that the areas of highest metals concentrations within the subsurface soils included the areas of Treater 2 & 3, Treater 4 & 5, the Drum Deck Area, the Dissolving Area (Filter Side), the QA Lab Area, the 11-20 Spent Tank Area, the Waste Water Treatment Area and the MW-2 Area. In many of these locations, the detected metals concentrations decreased with depth.
- Groundwater was encountered at depths of approximately 13 to 16 feet below ground surface (bgs) across the Site and flows in a northerly direction toward the Hoosic River. Metals were either not detected or were detected at low levels that did not exceed NYSDEC Technical & Operational Guidance Series (TOGS) 1.1.1 standards and guidance values for Class GA groundwaters. In addition, the pH levels for the groundwater samples ranged from 6.9 to 7.1. These data indicate that the metals detected within the shallow soils had not resulted in adverse impacts to the quality of the groundwater at the Site.

CHA completed Interim Remedial Measures (IRMs) at the Site in the fall of 2017, based on the findings of the Phase 1 and Phase 2 Investigation. The IRM activities and findings were presented in CHA's *Construction Completion Report* dated April 2020. The IRMs included the following activities:

- Excavation of soil from 12 areas of concern where metals concentrations exceeded the New York State 6 NYCRR Part 375 Industrial Use Soil Cleanup Objectives (SCOs) during the Phase 1 and Phase 2 Investigation;
- Temporary on-site stockpiling of excavated soil;
- Collection of post-excavation confirmatory soil samples and laboratory analysis for metals;
- Collection of stockpiled soil samples and laboratory analysis for waste characterization parameters;
- Disposal of 3,684.5 tons of non-hazardous excavated soil at Seneca Meadows Landfill in Waterloo, New York;
- Removal of and treatment of water collected in a basement storage area of a former building; performance monitoring during treatment, and eventual discharge to the Hoosic River, and
- Backfilling the AOC excavations with fill approved by NYSDEC.

Some of the soil excavation areas coincided with areas/locations that were slated for soil sampling during the SC phase. During soil excavation activities in these areas, and with the approval of the NYSDEC, soil samples were collected and analyzed for SC purposes. The analytical results of these samples are discussed in later sections of this report.

2.4 RECORDS SEARCH

A records search and document review was performed in conformance with applicable requirements contained in the Order and Appendix 3A of NYSDEC's DER-10. A commercial data base search of local city/county, tribal, state, and federal records was purchased Environmental Data Resources, Inc. ("EDR"), to identify regulatory listings for the Site and regulatory-listed facilities in the vicinity of the Site. The records search was undertaken to identify relevant historical environmental documentation. A summary of the salient findings of the Records Search is presented in Table 1.

Historical information indicates two USTs were identified on the Site. NYSDEC Tank No. 1 is identified as a 15,000-gallon No. 2 fuel oil tank installed in 1961 and closed in-place prior to March 1991. Tank No. 2 is identified as a 1,500-gallon No. 6 fuel oil tank that installed in 1981 and was closed-in place on December 1, 1987.

3.0 SITE SETTING & PHYSICAL CHARACTERISTICS

3.1 SURFACE FEATURES

The three main parcels primarily consist of former building foundations surrounded by asphalt and chain link fencing. A portion of the largest parcel (27.14-7-2) is located immediately to the south of First Street and is currently an asphalt parking area surrounded by a chain-link fence. An earthen levee and the Hoosic River are located immediately west of the Site and the Site is adjoined by the Pan Am Railroad along its eastern boundary. Another portion of the largest parcel is located immediately east of the Pan Am Railroad line, at the north end of the Site, and is a vacant grassy lot.

3.1.1 Soil

Native soil in the area, mapped by the New York State Geological Survey (NYSGS), is shown primarily as alluvium and lacustrine silt and clay (Caldwell and Dineen, 1987). Localized areas of soil include coarser material associated with channel sand and glacial outwash sand and gravel (Caldwell and Dineen, 1987).

Surface soil at the Site is primarily fill material from grade to between eight and 17 feet below ground surface. Underlying native soil consists predominantly of Hamlin silt loam (USDA, 2017).

3.1.2 Topography

Topography in the area of the Village of Hoosick Falls and the surrounding Town of Hoosick is characterized by upland hilly areas on either side of the Hoosic River valley, which generally trends from south-southeast to north-northwest (Figure 1). Elevations in this area range from approximately 400 to 1,200 feet above mean sea level (amsl) with the lowest elevations found along the Hoosic River. The topography at the Site is generally flat and surface elevations range approximately 425 - 430± feet above mean sea level (AMSL).

3.2 SITE GEOLOGY & HYDROLOGY

3.2.1 Geologic Setting

Area-wide unconsolidated geologic material above bedrock (collectively referred to as overburden) typically consists of the following:

- Fine-grained alluvium (predominantly silt and clay) deposited in the Hoosic River valley.

- Coarse-grained alluvium, consisting predominantly of sand and gravel, also deposited in the Hoosic River valley.
- Glacio-lacustrine silt and clay.
- Glacial outwash (predominantly sand and gravel) deposited by glacial meltwaters.
- Glacial till, which is typically a dense, compact, poorly-sorted mixture of silt, clay, sand, gravel, cobbles, and boulders deposited by glaciers.

Bedrock in the area consists predominantly of dark gray to black slate mapped by the NYSGS as the Walloomsac Formation (Potter, 1972). The area has been subject to complex structural deformation including folds and thrust faults (Potter, 1972). The resulting bedrock stratigraphy and structural geology of the area is variable and complex. Additional information on the geology of the Site is found in Section 5.5 of this report.

3.2.2 Surface Waters

Surface water bodies in the area of the Village of Hoosick Falls and the surrounding Town of Hoosick include perennial streams, intermittent streams, ponds, and rivers (Figure 1). The major surface-water feature is the Hoosic River located immediately west and north of the Site. The river flows north northwestward through the center of the valley.

Based on review of Federal Emergency Management Agency (FEMA) mapping, the majority of the Site is outside the 100-year and 500-year flood zones. A portion of the Site along its western boundary is immediately adjacent to the Hoosic River and includes an earthen levee oriented northeast to southwest. A narrow portion of the Site immediately east of the levee is mapped within the 500-year flood zone. The area between the levee and the river is mapped within the 100-year flood zone.

3.2.3 Groundwaters

Based on previous on-site investigation activities, shallow groundwater is found in poorly-sorted silt, sand, gravel and fill materials at depths of approximately 9 feet to 16 feet below ground surface (bgs) (an average depth of 12 feet bgs). A thick layer of less permeable glaciolacustrine deposits (silt-rich clay) is situated between shallow groundwater and a deeper overburden aquifer, which consists of sand and gravel. The depth to bedrock is variable and was encountered at a maximum depth of approximately 140 feet bgs. Groundwater flow in bedrock occurs predominantly through joints, fractures, faults, and foliation in the bedrock.

Based on 2018 quarterly sampling events conducted by CHA and subsequent work by ERM, the groundwater generally flows in a northerly direction toward the Hoosic River. The water level variations throughout the year are most likely seasonal and do not indicate a change in the groundwater flow direction, which is continually to the north.

Additional information on the hydrogeology of the Site is found in Section 5.5 of this report.

3.2.4 Local Potable Water Sources

No private or public potable water wells are identified within 0.25 mile of the Site.

The Village of Hoosick Falls municipal well field is located approximately 0.8 south of the Site and to the east of the Hoosic River. The system is classified by the New York State Department of Health (NYSDOH) as "groundwater under the direct influence of surface water". The three currently active wells (Well Nos. 3, 6 and 7) have total well depths of 55, 59, and 70 feet, respectively (CHA, 2006). The system has an approximate capacity of 1.0 million gallons per day (gpd). Produced water is treated through a membrane filtration plant. Additionally, granular activated carbon (GAC) is utilized to remove perfluorooctanoic acid (PFOA) from the water since February 2016.

3.2.5 Former On-Site Production Wells

Up to seven former production wells on the Site were used by Oak Mitsui to supply on-site process water for Oak Mitsui's operations. Seven well locations are identified on a 1999 Site Plan provided by Oak Mitsui, with five of these locations identified as Wells "B", "C", "D" "E" & "F" and two unnamed. The two additional wells are indicated as "capped well" located to the south of Well C, and an unnamed well adjacent to Well B is located within the footprint of the former main facility building. Historical Site drawings note the production capacities for Well B as 50 gallons per minute (gpm); D as 150 gpm; E as 150 gpm and F as 50 gpm. Well C is listed as "obsolete". No other information has been located pertaining to the construction details or condition of these wells.

As part of the groundwater SC, additional efforts were unsuccessful to obtain drilling and construction records for the production wells from the drilling company whom reportedly installed the wells to determine suitability for potential future collection of groundwater samples. During the site characterization, borehole geophysics were performed in accessible wells. Additional information regarding this effort can be found in Section 4.10.

4.0 SITE CHARACTERIZATION ACTIVITIES & METHODOLOGIES

The most recent Site characterization field activities were completed during 2018 – 2019. The soil characterization activities consisted of the completion of exploratory test pits, the advancement of soil borings, and collection and laboratory analysis of soil samples to further characterize the Site at locations not addressed by sampling conducted during completion of the Interim Remedial Measures during the fall of 2017. Table 2 presents a summary of all soil samples collected and the rationale for collecting each sample.

Table 3 presents a summary of the groundwater site characterization activities that consisted of surface geophysical surveys, groundwater quality profiling using direct push Waterloo Advanced Profiling System (APS™), exploratory soil borings, installation of groundwater monitoring wells, borehole geophysics in former water production wells, and collection and laboratory analysis of groundwater samples to further characterize groundwater quality beneath the Site.

For the purposes of the site characterization, the Site was split into two areas, designated as the East Side and the West Side (refer to the light blue, dotted line on Figure 3). The division was determined based on previous on-site operations; the East Side Site characterization activities focused on the area of the historical Oak Mitsui operations, and the West Side site characterization activities focused on the area of the historical coal gas manufacturing operations of the Hoosick Falls Gas Light Company and later the Fidelity Gas Company.

Field activities were conducted in accordance with United States Environmental Protection Agency (USEPA) and NYSDEC protocols, and the NYSDEC-approved Work Plan, which included Community Air Monitoring Plan (CAMP) to provide guidance and describe protocols for air monitoring during ground intrusive activities. Deviations from the Work Plan are summarized in this report. The specific field activities that were completed as part of the site characterization are described in the following sections. Photographs taken during site soil characterization activities are included in the Photographic Log in Appendix B.

4.1 STANDARDS, CRITERIA & GUIDANCE (SCG)

The following standards and criteria apply to this project.

- 6 NYCRR Part 375 - Environmental Remediation Programs
- 6 NYCRR Part 608 - Use and Protection of Waters
- 6 NYCRR Parts 700-706 - Water Quality Standards

- 29 CFR Part 1910.120 - Hazardous Waste Operations and Emergency Response

The following guidance applies to this project.

- DER-10 – Technical Guidance for Site Investigation and Remediation (May 2010);
- USEPA Drinking Water Health Advisory for PFOA and perfluorooctane sulfonic acid (PFOS) dated May 2016 (USEPA, 2016);
- NYSDEC Division of Spills Management - Sampling Guidelines and Protocols: Technologies Background and Quality Control/Quality Assurance for the NYSDEC Spill Response Program (NYSDEC, 1992); and
- TOGS 1.1.1[1] - Ambient Water Quality Standards & Guidance Values and Groundwater Effluent Limitations (NYSDEC, 1998).
- In May 2016, the USEPA issued a site-specific Removal Management Level (RML) for Residential Soil for Hoosick Falls of 1,000 µg/kg for the combined level of PFOA and PFOS (USEPA 2016b; USEPA, 2016c). This RML was based on the reference dose used by the USEPA Office of Water to establish the drinking water health advisory of 70 ppt. This RML was used to screen the soil results.

4.2 SITE CHARATERIZATION SOIL SAMPLING DURING IRM ACTIVITIES

During completion of the IRM soil excavation activities in the fall of 2017, a total of 19 soil samples were collected from excavations in select areas of the Site and analyzed for site characterization parameters. Each of these areas had previously been slated for the completion of soil borings during implementation of the site characterization phase; however, IRM excavation activities in these areas enabled collection of samples at the time of excavation. At each selected sampling location (sidewall or bottom), as directed by CHA, Oak Mitsui's contractor collected soil using the excavator bucket. CHA's field scientist then manually collected soil from the center portion of the bucket (i.e., material that had no direct contact with the bucket) and placed it into laboratory-provided glass jars. New, disposable nitrile gloves were donned by the field scientist prior to collection of each sample. The jars were labeled and stored in a rigid cooler with ice, pending submittal to the laboratory. Excavation areas and corresponding sample IDs are listed below ("S" indicates a sidewall sample; "B" indicates a bottom sample):

AOC Areas	Site Characterization Samples Collected
Treater 4&5 (AOC 2):	S108; S105A1; B101A
Treater 2&3 (AOC 3):	S111; B103
Treater 2&3 (AOC 4):	S117; B104A
Drum Deck (AOC 5):	S118; B106
Cell 11-20 Spent Tank (AOC 6):	Spent Tank Bottom

AOC Areas	Site Characterization Samples Collected
Filtration (AOC 8):	S134; B109
QC Lab (AOC 9):	S140; B110
Copper Press (AOC 10):	S142; B111
Arsenic Lamella/MW-2 (AOC 11):	S150; B113

All samples were transported by CHA, under chain-of-custody protocol, to Alpha Analytical Inc.'s (Alpha) service center in Albany, New York. The samples were then transported by Alpha's courier, under chain-of-custody protocol, to its laboratory in Westborough, Massachusetts for analysis. All samples were analyzed for the following parameters:

- Target Compound List (TCL) volatile organic compounds (VOCs);
- TCL semi-volatile organic compounds (SVOCs);
- TCL pesticides; TCL herbicides;
- Target Analyte List (TAL) metals;
- Total Cyanide;
- PCBs;
- per- and polyfluoroalkyl substances (PFAS); and
- 1,4-dioxane.

Analysis for PFAS was performed by Vista Analytical Laboratory, under subcontract to Alpha.

4.3 EXPLORATORY EXCAVATION

On May 16, 2018, exploratory excavation was completed on the West Side of the Site using a track-mounted excavator operated by Oak Mitsui's subcontractor, NRC. NRC contacted Dig Safely New York (DSNY) prior to the initiation of intrusive activities at the property. The excavation was completed to confirm the presence and locations of two former gas holder structures associated with historical on-site coal gasification operations. A CHA environmental scientist was present and provided oversight and documentation of excavation activities. A representative of the NYSDEC was also present and observed the excavation activities for both structures. Excavated materials were temporarily staged on plastic sheeting and were placed back into the excavations upon completion of exploratory activities. Observations and information obtained from this effort were used to aid in the selection of soil boring locations in these areas.

4.4 SOIL BORINGS & SAMPLING (SITE CHARACTERIZATION PHASE)

During the site characterization phase, a total of 30 soil borings were completed to further investigate potential impacts to soil from historical on-site activities. Drilling services were provided by CHA's subcontractor, Aztech Environmental Technologies, Inc. (Aztech), of Ballston Spa, New York. Aztech contacted DSNY prior to the initiation of intrusive activities at the property. All soil borings were completed utilizing Geoprobe® direct-push methods. Soil samples were collected via a Macro-Core® sampler with disposable acetate liners. Drilling and sampling activities were conducted under the full-time supervision of a CHA environmental scientist. The borings were placed to evaluate the subsurface conditions relative to the historic use of the Site as described below. During the period of May 21-23, 2018, 13 soil borings (SC001 through SC007, SC009, SC010, SC014, SC016, SC029 and SC030) were completed on the East Side of the Site in areas of historical Oak Mitsui operations. The Work Plan included eight additional borings on the East Side (identified as SC008, SC011 through SC013, SC015, SC017 through SC019); however, these borings were not completed because site characterization samples in these areas were collected during completion of the IRM soil excavation activities. Boring locations are shown on Figure 3.

- During the period of May 21-23, 2018, 11 soil borings (SC020 through SC028, SC021A and SC024A) were completed on the West Side of the Site, in the area of historical coal gas manufacturing operations. Based on observations during the above-referenced exploratory excavation associated with the gas holder structures, and in consultation with the NYSDEC, borings SC-021A and SC-024A were added to the original work scope.
- On July 30, 2018, based on analytical results from the soil sample collected at boring SC004, six additional soil borings (SC004A, SC031 through SC035) were completed in the vicinity of the original boring SC004.

Soil borings completed during May 2018 were advanced to a depth of 16 feet bgs at locations where the ground surface consisted of asphalt pavement or gravel and the Macro-Core® could be driven from the surface. At locations within former building footprints, where concrete slab foundations were present, Aztceh utilized a core drill to core through the concrete, and the soil borings were advanced to a depth of 16 feet below the bottom of the concrete slab, with a maximum overall depth of approximately 17 feet bgs. The supplemental soil borings completed in July 2018 (in the area of SC004) were advanced to a depth of 12 feet bgs.

At each boring location, soil samples were collected in four-foot intervals throughout the depth of the boring. A new, disposable acetate liner was placed into the Macro-Core® sampler for each sampling interval. Following sample collection, upon removal of the acetate liner from the sampler, the liner was cut open along its length and an initial screening of the soil for the presence of volatile

organic vapors was conducted using a RAE Systems model MiniRAE 3000 photoionization detector (PID). Wearing new, disposable nitrile gloves for each four-foot sample interval, CHA's field scientist removed soil from along the length of the sample core and placed it into a resealable plastic bag, which was then sealed and set aside for subsequent PID screening for the presence of volatile organic vapors. If samples from the boring location were slated for VOC analysis, soil was also placed into a laboratory-supplied glass jar which was sealed and labeled, pending potential selection for submittal to the laboratory. The sample core was then examined for lithologic classification and obvious evidence of contamination (e.g. staining, odor). If suspected evidence of potential contamination was observed in a specific interval within the four-foot sample core, soil from that interval was also placed into a glass jar and a sealable plastic bag and set aside for subsequent PID screening.

Soil descriptions and PID readings were recorded on boring logs, which are included in Appendix C. At a minimum, one soil sample, comprised of soil from the sampling interval exhibiting the highest potential for the presence of contamination (based on PID readings or field observations) or the interval immediately above the observed saturated zone, was retained from each boring for laboratory analysis. For each interval selected for analysis, soil was placed into laboratory-provided containers which were then labeled and stored in a cooler with ice, pending submittal to the laboratory.

Upon completion of sampling at each boring, the borehole was filled with native material (drill cuttings) to a depth of approximately one foot below grade, then granular bentonite was placed above the native material to within a few inches of the surface and was hydrated with potable water to seal the borehole. At locations within pavement or gravel, the boreholes were repaired at the surface with asphalt cold patch. At locations within concrete slab foundations, where the concrete was cored, the core was placed back into the hole and was sealed with portland cement.

Soil samples from borings located on the East Side were submitted to the laboratory to be analyzed for one or more of the following: TAL metals; TCL VOCs; TCL SVOCs; TCL pesticides; PCBs; total cyanide; PFAS; and 1,4-dioxane. Specific parameters analyzed for at the East Side boring locations were based on results of the previous Phase 1 and Phase 2 investigations.

All soil samples from borings located on the West Side were submitted to the laboratory to be analyzed for the following: TCL VOCs; TCL SVOCs; TCL pesticides; PCBs; and total cyanide. In addition, soil samples from select boring locations on the West Side were also analyzed for TAL metals; PFAS; and 1,4-dioxane.

Supplemental soil samples collected in the vicinity of SC004 in July 2018 were submitted to the laboratory to be analyzed for arsenic and PFAS.

All samples, including quality assurance/quality control samples (field duplicates, matrix spike/matrix spike duplicates), were transported by CHA, under chain-of-custody protocol, to Alpha's service center in Albany, New York. The samples were then transported by Alpha's courier, under chain-of-custody protocol, to its laboratory in Westborough, Massachusetts for analysis. Analysis for PFAS was performed by Vista Analytical Laboratory, under subcontract to Alpha.

All site characterization sample results were subject to independent, third party data validation. As such, the laboratory prepared ASP Category B data packages for all samples. The data packages were submitted to Alpha Geoscience in Clifton Park, New York, for validation, and Data Usability Summary Reports (DUSR's) were prepared for each package.

4.5 GROUNDWATER INVESTIGATION SUBSURFACE CLEARANCE SURVEYS

Groundwater characterization sampling locations including permeability profiling (Waterloo APS^{TM}), exploratory geologic soil boring and groundwater monitoring well locations are shown in Figure 6.

Dig Safely New York (DSNY) was notified prior to the initiation of intrusive activities at the property. DSNY identified, located, and marked utilities in areas proposed for subsurface investigation. Ground Penetrating Radar Services (GPRS) was retained to evaluate proposed drilling locations using ground penetrating radar (GPR), magnetometry/metal detection, inductive cable/pipe location, and other appropriate techniques. At a minimum, a 10-foot diameter radius around each planned drilling location was scanned for subsurface utilities prior to the initiation of the work. Proposed sampling locations were adjusted in the field as necessary based on the results of subsurface clearance efforts.

4.6 PERMEABILITY PROFILING & GROUNDWATER SAMPLING

The purpose of this task was to evaluate groundwater quality and hydrogeologic characteristics beneath the Site. Results were evaluated to identify potential locations for new permanent monitoring wells and their respective screen zones. Under the direction of ERM personnel, Cascade Technical Services, Inc. (Cascade) of Montpelier, Vermont, utilized the Waterloo APS™

Technology to continuously log the index of inferred hydraulic conductivity (Ik) and collect discrete-interval groundwater samples.

Eleven profile borings were completed: ten on-site locations and one off-site location (Figure 6). Ik values were logged and graphically profiled as the Waterloo APS™ tooling was advanced by a Geoprobe direct-push rig. Real-time data were used to identify zones of high permeability for potential sampling. Upon selection of a high permeability zone, a sample port was opened in the down-hole tooling and groundwater purging was initiated via peristaltic pump. Select geochemical parameters were measured to ensure groundwater stabilization prior to sample collection. Stabilization criteria for Waterloo APS™ sampling require less than 10 percent (%) difference between consecutive readings of specific conductance (SpC), pH, dissolved oxygen (DO), and oxidation-reduction potential (ORP). Geochemical parameters were measured with a YSI electronic field parameter meter. The YSI meter was calibrated three times daily per NYSDEC request and samples were collected directly into laboratory-supplied sampling containers.

Samples were planned for collection from three depth intervals at each location: one at the water table, one between the water table and refusal, and one at drilling refusal. The final number and depth of samples collected was ultimately dependent upon the hydrogeologic conditions at the specific location. If the Ik was too low, the formation did not yield sufficient water for sampling and the profiler was advanced deeper until Ik conditions were favorable for a sample attempt. If a location exhibited more than three discreet zones of relatively high Ik, additional samples were collected. In large continuous zones of high Ik, the ERM hydrogeologist and NYSDEC site personnel determined the frequency of sampling based on hydraulic head, geochemical parameters, location of other collected samples and other Site considerations.

Water table depth was measured at each profiling location while the probe was stationary. Sample collection was attempted when hydraulic head readings indicated the probe was below the water table. A sample was collected at the water table (or shallowest depth possible). Subsequent deeper samples were collected until till or bedrock was encountered or the Waterloo APS™ otherwise reached refusal.

Based on real-time APS™ profiling results, the number of groundwater samples collected at each profiling location varied from the original number of three. Changes in sampling frequency were made in consultation with NYSDEC's field representative. Precautions were implemented to avoid the use of sampling equipment and materials that may contain PFAS (refer to Section 4.14). Rinse samples were collected directly into pre-labeled sampling containers and stored in a clean pre-chilled

cooler. Samples were stored on ice and transported under chain of custody to a NYSDOH-approved environmental laboratory and analyzed for parameters listed in Section 4.8. Table 4 lists all samples collected for laboratory analyses and the constituents analyzed for each specific sample.
Retraction grouting of each borehole was performed immediately after completion to minimize potential vertical migration of contaminants. Cascade practiced standard Waterloo APS™ decontamination procedures between locations as described in section 3.4.1. Waterloo APS™ tooling was disassembled and thoroughly decontaminated between boreholes. All decontamination water and disposable sampling materials were collected and placed in new, labelled United States Department of Transportation (USDOT) approved 55-gallon steel drums. One equipment blank was collected from each profiler daily to ensure effectiveness of decontamination procedures.

4.7 GROUNDWATER MONITORING WELL INSTALLATIONS & SAMPLING

Profiling results informed recommendations for the target locations of fixed monitoring wells proposed in a Geologic Boring and Monitoring Well Location Plan, dated 1 May 2019 and approved by NYSDEC in its letter dated May 8, 2019.

4.7.1 Groundwater Monitoring Well Exploratory Soil Borings

Soil borings were advanced to the top of bedrock or drilling refusal using sonic drilling technology at boring locations shown on Figure 6. Each borehole was logged for geologic characterization.

Soil was placed directly into sealable high-density polyethylene (HDPE) bags labeled with the borehole identification and depth interval. The soil was allowed to equilibrate within the bag for approximately five minutes prior to the collection of headspace readings. Soil was screened by an ERM geologist using a calibrated photoionization detector (PID) equipped with an 11.7 electron volt (eV) lamp. Soil was visually examined for physical properties including color, texture, composition, moisture content, odor, and visual evidence of staining, discoloration, or product/sheen. Soil descriptions and other field data and observations were documented on soil boring logs (Appendix C).

All excess soil and disposable sampling materials were collected and placed in new, labelled USDOT-approved 55-gallon steel drums.

Precautions were implemented to avoid the use of sampling equipment and materials that may contain PFAS. These precautions included, but were not limited to, disposable HDPE plastic covering placed on the sampling table, decontamination of tools and donning of new nitrile gloves

per sampling interval. PFAS-specific sampling considerations for all media are presented in Section 4.14.

During drilling of the exploratory soil boring and installation of groundwater monitoring well FS-MW-007A, a free-phase product was observed in the drilling water return to the mud pan. The amount of oil was minimal, and it was necessary to skim the oil off the water surface in several drums used to contain the water from the drill pan in order to obtain enough sample volume for the analytical laboratory. The sample was analyzed for PFAS, TCL organic and TAL inorganic compounds, product finger printing, and total organic carbon (TOC).

4.7.2 Monitoring Well Installation

Monitoring well installations were initiated in June 2019. Nineteen (19) permanent wells and four (4) temporary wells were installed at selected depth intervals based on the texture, relative permeability, thickness of subsurface geologic units and initial analytical results observed during the Waterloo APS™ sampling. One to three overburden monitoring wells were installed with varying screen intervals in each location as summarized below:

Well Interval Designation	Screened Interval Description
A	Straddling or just below the water table
B	Below the clay unit near the top of the underlying sand and gravel
C	Intermediate - near the middle of the overburden deposits
D	Near the bottom of the overburden deposits

Monitoring wells were installed using sonic drilling techniques and constructed with two-inch polyvinyl chloride (PVC) pipe. Wells were constructed using either 5-foot or 10-foot long 0.010-inch pre-slotted screens.

Filter packs were constructed around each well screen using Morie #0 sand to a minimum of two feet above the top of the screen. A minimum two-foot thick bentonite seal was installed above the filter pack and hydrated with approved potable water. Cement-bentonite grout was installed in the remainder of the borehole to approximately one foot below ground surface. A flush-mounted steel protective casing was cemented in place over each well. A summary of monitoring well construction is presented in Table 5. Monitoring well construction logs are presented in Appendix A.

Monitoring wells were developed using inertial pumping techniques. A stainless-steel check-valve and HDPE tubing was used for well development. Development water was purged directly into labelled, new USDOT approved 55-gallon steel drums.

4.7.3 Groundwater Sampling

Groundwater sampling was initiated in July 2019.

As discussed in Section 4.7.1, a minimal amount free-phase product was observed in the drilling water return to the mud pan during drilling of the exploratory soil boring and installation of groundwater monitoring well FS-MW-007A. The July 2019 groundwater sampling event, no measurable free-phase product was detected in water table well MW-07A and a groundwater sample was collected from the well.

Monitoring wells were sampled using peristaltic pumps and HDPE tubing. Groundwater samples were collected from all monitoring wells using low flow/minimal drawdown purging and sampling procedures (USEPA, 1996). ERM field staff continuously monitored temperature, SpC, DO, pH, turbidity, ORP, and depth to water using a calibrated YSI 566 meter with flow-through cell and a water level indicator. These parameters were measured until stabilization was reached. Groundwater sampling records are presented in Appendix C. Special precautions relative to PFAS are provided in Section 4.11. Equipment decontamination procedures are presented in Section 4.12.

Samples were stored on ice and transported under chain of custody to a NYSDOH-approved environmental laboratory and analyzed for parameters listed in Section 4.8. Table 4 lists all samples collected for laboratory analyses and the constituents analyzed for each specific sample.

4.7.4 Groundwater Level Gauging

A New York-licensed surveyor, Control Point Associates of Albany, New York (CPA) surveyed the profile boring locations and groundwater monitoring wells. Groundwater levels were obtained using an electronic water level indicator.

4.8 GROUNDWATER SAMPLE ANALYSIS

Groundwater samples collected from discrete-depth intervals from the profiling points and groundwater monitoring wells were analyzed by NYSDOH-approved environmental laboratories for the following parameters using the listed analytical methods:

- TCL VOCs plus 10 Tentatively Identified Compounds (TICs) by USEPA Method 8260C;
- TCL SVOCs plus 20 TICs by USEPA Method 8270C;
- Pesticides by USEPA Method 8081;
- PCBs by USEPA Method 8082;
- TAL metals by USEPA Method 6010B;
- Mercury by USEPA Method 7470;
- TOC by Lloyd Kahn Method;
- pH by Standard Method 9045D;
- Cyanide by USEPA Method 9010; and
- Weak Acid Dissociable Cyanide by 9012B.
- PFAS by USEPA Method 537-1.1 (modified);
- 1,4-dioxane by USEPA Method 8270 with selected ion monitoring (SIM);

If the identified intervals within a profiled location or a groundwater monitoring well did not yield sufficient water volume for all requested analyses, the following sample collection priority was be followed: 1) PFAS, 2) VOCs/1,4-dioxane, 3) metals, 4) Cyanide/WAD Cyanide, 5) TOC, 6) pH, and 7) Pesticides/PCBs.

4.9 UNDERGROUND STORAGE TANK GEOPHYSICAL SURVEYS

On July 16, 2019, New York Leak Detection (NYLD) performed an additional geophysical survey using GPR, magnetometry/metal detection, inductive cable/pipe location, and other appropriate techniques to locate the USTs as discussed in Section 2.4.

4.10 FORMER PRODUCTION WELL LOCATIONS AND BOREHOLE GEOPHYSICAL SURVEYS

Efforts to obtain drilling and construction records for the production wells from the drilling company whom reportedly installed the wells were unsuccessful.

Wells E & F are located within vaults with standard street manholes. The remaining wells identified on a 1999 Site Plan (Wells “B”, “C”, “D”, and the two unnamed were not readily found in the field. In July 2018, shallow excavations were performed to locate Well B and the adjacent unnamed well located within the footprint of the former main facility building. The unnamed well was not found

and Well B was located but found to be damaged at the surface, open and full of what appeared to be building demolition debris.

In October 2019, Wells E & F were opened, and the pumps/wiring removed by a well driller to permit borehole geophysical logging to determine the current physical attributes of each well (casing depth, screen length, etc.). Optical and acoustical televiewers were run in each well.
Well E was found to be 82 feet deep with a 10-foot screen set from approximately 72 feet – 82 feet bgs. Well F was found to be approximately 100 feet deep with a 17-foot screen set from approximately 83 feet – 100 feet.

4.11 AERIAL DRONE SURVEY

The Site shoreline was flown using a unmanned aerial vehicle (drone) to identify areas temperature contrasts along the Hoosic River shoreline as part of a larger infrared and ortho photogrammetry survey along the Hoosic River. Areas of temperature contrast along the Hoosic River shoreline may be locations of groundwater discharge.

On December 12, 2019, under direct supervision of ERM personnel, two Federal Aviation Administration (FAA) licensed pilots – a Remote Pilot in Command (RPIC) and a Visual Observer (VO) of Geomatix, LLC (Geomatix) operated an Unmanned Aircraft System (UAS) to obtain georeferenced oblique angle infrared images and accompanying high-resolution orthoimages. Geomatix surveyed the southern bank of the Hoosic River extending from the southern property boundary to the Church Street Bridge. Prior to the flight, Geomatix performed a remote site inspection to identify any flight hazards or regulatory requirements as they pertain to UAS operation. These included:

- FAA Airspace Regulations;
- Terrain Obstacles;
- Public and Private Property Access and
- Property Owner Notification

The UAS was equipped with an air-cooled Radiometric Forward Looking Infrared (FLIR) XT Thermal Camera and a DJI 20 Megapixel X5S Camera. Geomatix calibrated their FLIR camera to the standard emissivity value of 1.0. The FLIR camera automatically recalibrated between each captured image. The resolution of the captured infrared data was approximately 10cm/pixel. The resolution of the orthoimages were approximately 3-5cm/pixel. Geomatix manually flew the

properties and captured data at predefined intervals and altitudes. High-resolution imagery was captured at an altitude of approximately 250 feet above ground surface.

4.12 DECONTAMINATION PROCEDURES

During the course of the fieldwork, to minimize the potential for cross-contamination during sampling, new disposable nitrile gloves were donned by CHA's field scientist prior to handling each soil sample core collected with the Macro-Core® sampler. Following removal of the disposable acetate liner containing the sample core, the cutting shoe and sample tube were decontaminated using a solution of potable water and Alconox® detergent, followed by a potable water rinse. Following decontamination, a new acetate liner was placed in the sample tube and the sampler was reassembled.

A temporary decontamination pad was constructed during the groundwater investigation conducted by ERM using two layers of polyethylene sheeting that was raised at the sides with soil berms. Re-usable drilling and sampling equipment and tools were cleaned with Alconox® and potable water solution followed by PFAS-free water steam rinse between uses. Decontamination water from the pad was transferred and managed as discussed in Section 4.13. Special precautions relative to PFAS are provided in Section 4.14.

4.13 INVESTIGATION DERIVED WASTE

Investigation Derived Waste (IDW) generated during the investigation included:

- Water - decontamination fluids and groundwater from Waterloo APS™ profiling and monitoring well development/purging/sampling:
- Disposables - personal protective equipment (PPE), HDPE tubing used for groundwater sampling, paper towels, and HDPE plastic; and
- Solids – soil from soil sampling and subsurface clearance activities.

IDW generated from the field sampling efforts were placed in new USDOT-approved 55-gallon steel drums and/or a frac tank staged for as-required waste characterization sampling in advance of disposal. All containers of IDW were properly labeled per NYSDEC, USEPA and/or USDOT requirements. The IDW containers were staged at the Site prior to manifesting and shipment for off-site disposal.

4.14 PFAS SAMPLING CONSIDERATIONS

To avoid or minimize contamination of environmental samples with PFOA or other PFAS from sampling equipment or other materials, guidelines have been developed for sampling procedures and equipment decontamination (NJDEP, 2007; USEPA, 2015). These guidelines involve avoiding the use of or contact with materials that may contain PFAS (USEPA, 2009) and include:

- Do not wear new clothing or clothing that has been treated with stain- or water-resistant coatings. All clothing must be washed three to six times before use.
- Do not wear Tyvek® clothing.
- No Post-It-Notes® will be used during sampling.
- Personnel should not handle pre-wrapped food or snacks while working at the properties.
- Do not use any material or equipment that contains Teflon® (e.g. Teflon® tubing, sample container cap liners, tape, etc.).
- Do not use any materials or equipment that contains PTFE (i.e., PTFE-coated aluminum foil, Gore-Sorbers™) or any other material containing a fluoropolymer.
- Use only laboratory-supplied sampling containers/caps made of either polyethylene, high density polyethylene (HDPE) or polypropylene for samples to be analyzed for PFOA and other PFAS.
- Field personal must wash hands with soap and potable water prior to sampling activities, especially after contact with any materials potentially containing PFAS.
- Do not use chemical ice packs ("blue ice").
- Preserve samples on wet ice only; no "blue ice". Polyethylene bags can be used to store ice.

Dedicated potable water containers were used in the field throughout the duration of the project. The containers were filled with potable water from a source known to have non-detectable concentrations of PFAS prior to mobilization into the field. Aqueous field rinse blank samples were collected from the containers prior to mobilization and during use in the field for laboratory analysis of PFAS to ensure that the potable water containers are not a potential source of PFAS.

The following NYSDEC special precautions for trace contaminant sampling was utilized based on review of Section 5.2.9 of the NYSDEC's Sampling Guidelines and Protocols (NYSDEC, 1992):

- A clean pair of new, disposable nitrile gloves [were] worn each time a different point or location is sampled; and
- Sample containers [were] placed into separate re-sealable polyethylene plastic bags immediately after collection and labeling.

4.15 COMMUNITY AIR MONITORING PLAN

The NYSDEC-approved Work Plans included a Community Air Monitoring Plan (CAMP), which was implemented throughout ground intrusive site characterization activities at the Site. The CAMPs included monitoring of both fugitive dust and organic vapors. Two CAMP monitoring stations with enclosures were set up daily: one upwind of the work area; and one downwind of the work area. The system was programmed to notify field personnel via text messaging in the instance of an exceedance of established action levels, so that corrective action could be implemented. Additionally, one handheld PID was utilized within the exclusion zone to facilitate field screening of soil samples and monitor breathing zone vapor concentrations.

4.16 DEVIATIONS FROM THE WORK PLAN & ADDITIONS TO SCOPE

The following modifications to procedures outlined in the work plans which were discussed with NYSDEC representatives in the field and approved for use during implementation of the SC activities.

April 2019

The copper concentration in the shallow groundwater sample collected at FS-APS-004 prompted NYSDEC to request installation of temporary wells FS-TMW-001 through FS-TMW-004 in an attempt to delineate the presence of elevated levels of copper in groundwater in the vicinity of this location.

- NYSDEC requested the installation of two additional exploratory borings in the northern part of the Site. This request was fulfilled with the installation of three permanent monitoring wells at location FS-MW-012 and two permanent monitoring wells at location FS-MW-013.

June 2019

- Two permanent wells were installed at location FS-MW-002 to monitor the vertical extent the subsurface conditions encountered during drilling. One permanent well was originally proposed.
- One of two planned permanent monitoring well locations were installed at location FS-MW-009 due to subsurface lithological conditions that varied from those determined by APS log FS-APS-009.

July 2019

- Temporary well FS-TMW-002 was not sampled due to a decline in groundwater level at that location between the time the well was installed and developed, and the groundwater monitoring well sampling event.

5.0 RESULTS

The findings of the site characterization activities and analytical results for the soil and groundwater samples collected for site characterization purposes during the IRM activities, and the soil boring and groundwater characterization programs are discussed in the following sections.

Sample results were compared to applicable NYS SCGs (Section 4.1) by media as summarized below.

5.1 CAMP MONITORING RESULTS

In summary, the CAMP results indicated the following:

- **Particulate Results:** There were no 15-minute averages in excess of 150 µg/m³ which was the action level established in the CAMP.
- **Volatile Organic Compound (VOC) Results:** No VOC concentrations exceeded the 15-minute action level during the IRM activities.

In accordance with the CAMP, fugitive dust monitoring was performed using a DustTrak 8530 particulate meter during ground intrusive activities. The action level of 150 µg/m³ over a fifteen-minute period was not exceeded during site characterization activities. Furthermore, minimal visible airborne dust was observed leaving the work areas. Continuous monitoring for VOCs using a MiniRAE 3000 PID was also performed during all ground intrusive activities. The action level of 5 parts per million (ppm) over a 15-minute period was never exceeded during the site characterization activities. Air monitoring data are included in Appendix D.

5.2 WEST SIDE EXPLORATORY EXCAVATION OBSERVATIONS

Exploratory excavation conducted on the West Side of the Site confirmed the presence of the two circular gas holder structures (Appendix B, Photographs 1 through 10). The approximate locations of the structures are shown on Figure 3. A portion of the brick wall of each structure was exposed and the top of the walls were encountered at a depth of approximately two feet bgs. A significant portion of the larger, more northerly structure's brick exterior was exposed to a depth of approximately nine feet bgs, where a concrete footer was observed (Photograph 4). The wall of this structure was observed to be approximately two feet in width. Excavation on the interior side of the wall revealed the presence of water within the fill material and an apparent brick floor at approximately five feet bgs. Excavation extended through the brick floor into the underlying soil/fill materials. With the wall of the structure exposed, soil boring locations SC021 and SC021A were selected to assess subsurface

conditions along the inside and outside of the structure wall, respectively (outside of the disturbed area of excavation).

The wall of the smaller of the two structures was found, to the southwest of the larger structure, and partially exposed such that the interior and exterior sides of the wall could be determined. Soil borings SCO24 and SC24A were then selected to assess subsurface conditions along the inside and outside of the structure wall, respectively (outside of the disturbed area of excavation). Upon completion of exploratory activities, NRC backfilled the excavations to existing grade using the excavated material.

5.3 SOIL BORING OBSERVATIONS & SCREENING RESULTS

Based on field observations of soil samples collected during the soil boring program, soil conditions on the East Side of the Site generally consist of a mixture of sand, silt, gravel and industrial fill materials (including ash, fragments of brick, slag and wood) extending to depths up to approximately 14 feet bgs. Fill materials are generally underlain by a layer of fine to coarse sand and gravel, and then silty-clay. At locations where fill materials were limited to the uppermost two to three feet (SC006, SC007, SC016, SC029 and SC030), soil conditions consisted of a mixture of sand and silt, grading to the above-referenced fine to coarse sand and gravel layer, underlain by silty-clay. Soil conditions on the West Side of the Site were not observed to be significantly different from the East Side, except that the presence of fill materials was more limited on the West Side. Photographs of sample cores from each boring are included in Appendix B. Saturated soil conditions were observed at depths between 12 and 16 feet bgs, except for boring location SC001 (located on the northernmost portion of the Site, east of the railroad bridge), where saturated soil was observed at a depth of approximately eight feet bgs. Bedrock was not encountered during the site characterization activities conducted by CHA. Soil boring logs are included in Appendix C.

A layer of black, weathered coal-tar material approximately six inches thick was encountered (Photographs 33 and 34 in Appendix B) at a depth of approximately 9.5 to 10 feet bgs at the location of boring SC021, on the interior side of the wall of the larger gas holder structure (depth corresponds to the bottom of the structure). The description of the material as weathered coal tar is based on its presence within a documented former MGP gas holder structure and based on visual observation and olfactory evidence. The NYSDEC representative on-site at the time, Will Shaw, concurred with the description.

The eight to ten-foot depth interval (including the black material) was retained and submitted for laboratory analysis. This material was not observed within the soil at nearby boring SC021A, situated outside of the gas holder structure. The eight to ten-foot depth interval at SC021A was also submitted for laboratory analysis for comparison with the sample from SC021.

Also, a zone of dark gray staining, exhibiting a moderate odor, observed within the 12 to 16-foot sample core at boring SC023. The material consisted predominantly of fine to coarse-grained sand with minor components of silt and fine gravel and was estimated to be at a depth interval of approximately 12 to 13 feet bgs.

Results from field PID screening of soil samples showed that volatile organic vapors were not detected above background levels in samples collected for site characterization purposes during IRM soil excavation activities, or during the soil boring program at locations SC001, SC005, SC006, SC007, SC009, SC010, SC014, SC016, SC020, SC021, SC021A, SC022, SC024, SC024A, SC025, SC028, SC029 and SC030. Screening results of all other samples showed PID readings of less than six parts per million (ppm), except for the 12 to 13-foot depth interval at boring SC023, which exhibited a PID reading of 223 ppm, and the seven to eight-foot depth interval at boring SC026, which exhibited a PID reading of 200 ppm, both of which were retained and submitted for laboratory analysis.

5.4 SOIL SAMPLE ANALYTICAL RESULTS

The subsurface soil sample analytical results were compared to the 6NYCRR Part 375 Industrial Use SCOs, based on historical and future intended Site use. Based on further consultation with the NYSDEC, results are also compared to Commercial Use SCOs (i.e., a standard more restrictive than the intended future use of the Site). Analytical results (detected compounds only) for samples collected during both the IRM and site characterization activities are summarized in Table 6. Parameters at concentrations exceeding the Commercial and Industrial Use SCOs are indicated by shaded cells in the tables. Yellow shaded cells indicate exceedance of Commercial Use SCOs (but below Industrial Use) and blue shaded cells indicate exceedance of Industrial Use SCOs.

Soil boring/sampling locations exhibiting contaminant concentrations exceeding the Industrial Use SCOs upon completion of the IRM and site characterization activities are shown on Figure 4. The complete laboratory analytical reports are included in Appendix E.

5.4.1 East Side (Areas of Historical Oak Mitsui Operations)

VOCs

A total of 29 site characterization soil samples were analyzed for TCL VOCs: 19 samples from the IRM activities; and 10 samples from the soil boring program. Detected VOCs were limited to acetone, carbon disulfide, chloroform, cyclohexane, methyl ethyl ketone and toluene. One or more of these compounds was detected in nine of the collected samples (at depths greater than 4 feet bgs); however, no VOCs were detected at concentrations exceeding the Industrial Use SCOs.

SVOCs

A total of 25 site characterization soil samples were analyzed for TCL SVOCs: 19 samples from the IRM activities and 6 samples from the soil boring program. SVOCs were detected in six of the 25 samples submitted for analysis. In five of these six samples, multiple SVOCs were detected at estimated concentrations above the Method Detection Limit (MDL), but below the laboratory Reporting Limit (RL). In the remaining sample, SOIL-SC004(4'-8') collected from the northwestern portion of the Site, 19 SVOCs were detected above the laboratory RL. Only one of these compounds, benzo(a)pyrene, detected at a concentration of 1.7 ppm, slightly exceeded its Industrial Use SCO of 1.1 ppm. The sampling location and corresponding SVOC concentration are shown graphically on Figure 4.

Pesticides

A total of 25 site characterization soil samples were analyzed for TCL Pesticides: 19 samples from the IRM activities; and 6 samples from the soil boring program. Detected pesticides were limited to 4,4'-dichlorodiphenyltrichloroethane (DDT) in the Spent Tank Bottom sample, and delta-BHC in the S118 sample. However, neither of these compounds was detected at a concentration exceeding its Industrial Use SCO.

PCBs

A total of 25 site characterization soil samples were analyzed for TCL PCBs: 19 samples from the IRM activities; and 6 samples from the soil boring program. PCBs were detected in the S105A1 sample (Treater 4&5 area) and at boring location SC004; however, the detected concentrations did not exceed the Industrial Use SCO.

Metals & Cyanide

A total of 36 site characterization soil samples were analyzed for TAL metals: 19 samples from the IRM activities; and 17 samples from the soil boring program. Several metals were detected in each sample; however, arsenic was the only metal detected at concentrations exceeding its Part 375 Industrial Use SCO. Arsenic exceeded the Industrial Use SCO of 16 ppm at the following sampling locations: borings SC004; SC004A; and SC014. Arsenic concentrations at these locations (at depths greater than 4 feet bgs) ranged from 21.9 to 125 ppm.

In addition, arsenic concentrations exceeding the Industrial Use SCO were also exhibited at the following confirmatory sampling locations upon conclusion of the IRM activities: S115 (Treater 2&3 area); S130, S131, S132 and B107 (1-10 Spent Tank area); S136 and S137 (Filtration area); and Spent Tank South Sidewall East and Spent Tank North Sidewall East (11-20 Spent Tank area). Arsenic concentrations at these locations (at depths greater than 4 feet bgs) ranged from 19.9 to 161 ppm. Sampling locations exceeding the Industrial Use SCO, along with their corresponding arsenic concentrations, from both the IRM and site characterization activities are shown graphically on Figure 4.

A total of 24 site characterization soil samples were analyzed for total cyanide: 18 samples from the IRM activities (sample S108 was inadvertently not selected for total cyanide analysis); and 6 samples from the soil boring program. Total cyanide was detected in one sample, SOIL-SC004(4'-8') located on the northwestern portion of the Site, at an estimated concentration of 0.27 ppm, which is below the Industrial Use SCO.

PFAS and 1,4-Dioxane

A total of 32 site characterization soil samples were analyzed for PFAS and 1,4-dioxane: 19 samples from the IRM activities; and 13 samples from the soil boring program, including seven (7) samples from the supplemental soil borings completed in the vicinity of SC004. At least one PFAS compound was detected in 17 of the 19 samples collected from the IRM activities, and in all the samples collected during the soil boring program. The largest number of PFAS detected was in the sample from boring SC035. Detected PFAS and their locations are shown graphically on Figure 5. The analytical results for two specific PFAS are discussed further in the following paragraphs.

The PFAS perfluorooctanoic acid (PFOA) was detected in all but four East Side samples (S111, B106, SOIL-SC007(8'-12') and a duplicate sample SOIL-DUP-SC001). Concentrations of PFOA in

soil samples across the East Side of the Site ranged from 53 to 33,700 parts per trillion (ppt). The highest concentration was detected at the location of boring SC004, on the northwestern portion of the Site. The second highest concentration of PFOA detected at the Site was 4,520 ppt (in sample S108).

Given the PFOA concentration detected at boring SC004 in comparison to the other PFOA concentrations detected across the Site, additional sampling in this area was subsequently conducted in July 2018. Boring SC004A was completed approximately one foot away from SC004 in an effort to verify the results from SC004. Borings SC031, SC033 and SC035 were completed approximately 10 feet to the south-southwest, northeast and southeast of SC004, respectively). Borings SC032 and SC034 were completed approximately 30 feet to the south-southwest and north-northeast of SC004, respectively (refer to inset on Figure 3). Samples retained for laboratory analysis from the supplemental borings were from the four to eight-foot depth interval, the same as the sample from SC004. The concentration of PFOA in the sample from SC004A was 1,300 ppt. The wide disparity in the results for the samples from SC004 and SC004A is likely attributable to variability within the sample matrix. Concentrations of PFOA at the supplemental boring locations ranged from 278 ppt at SC034, approximately 30 feet to the north-northeast of SC004, to 20,400 ppt at SC031, approximately 10 feet to the south-southwest of SC004.

PFOS was detected above the laboratory reporting limit in 3 of the 32 samples submitted for analysis. These samples were S108, SC004 and SC035, and the PFOS concentrations were 840 ppt, 629 ppt and 145 ppt, respectively.

The compound 1,4-dioxane was not detected in any of the site characterization soil samples at concentrations above laboratory reporting limits.

5.4.2 West Side (Areas of Historical Coal Gasification Operations)

All site characterization soil samples submitted for laboratory analysis from the West Side were collected during the soil boring program.

VOCs

A total of 12 site characterization soil samples were analyzed for TCL VOCs (one sample from each boring completed on the West Side, plus a field duplicate). One or more VOCs were detected in 9 of the 12 samples submitted for analysis. The largest numbers of VOCs detected were in samples

SOIL-SC020(8'-12'), SOIL-SC021(8'-10') and SOIL-SC024(8'-10'). Many of the VOCs were reported at estimated concentrations above the MDL, but below the laboratory RL. None of these compounds was detected at concentrations exceeding their respective Industrial Use SCOs.

SVOCs

A total of 12 site characterization soil samples were analyzed for TCL SVOCs (one sample from each boring completed on the West Side, plus a field duplicate). One or more SVOCs were detected in 10 of the 12 samples submitted for analysis. The largest numbers of SVOCs detected were in samples SOIL-SC020(8'-12'), SOIL-SC021(8'-10'), SOIL-SC023(12'-13') and SOIL-SC024(8'-10'), in which 18 to 24 SVOCs analyzed for were detected in the samples. The highest concentrations of individual SVOCs were detected in sample SOIL-DUP-SC002, the duplicate of SOIL-SC020(8'-12'), but exceedances of the Industrial Use SCOs were only present in samples SOIL-SC020(8'-12'), SOIL-SC021(8'-10') and SOIL-SC023(12'-13'). Specifically, the following six SVOCs were detected at concentrations exceeding the Industrial Use SCOs in one or more samples: benzo(a)anthracene; benzo(a)pyrene; benzo(b)fluoranthene; chrysene; dibenzo(a,h)anthracene; and indeno(1,2,3-cd)pyrene. The sampling locations and corresponding SVOC concentrations are shown graphically on Figure 4.

Pesticides

A total of 12 site characterization soil samples were analyzed for TCL Pesticides (one sample from each boring completed on the West Side, plus a field duplicate). Pesticides were detected in two of the samples. The pesticides endosulfan sulfate and heptachlor epoxide were detected in sample SOIL-SC023(12'-13'), and endosulfan II was detected in sample SOIL-DUP-SC002 (duplicate of SOIL-SC020(8'-12')); however, based on data validation, the pesticide results for both of these samples were rejected and are considered unusable.

PCBs

A total of 12 site characterization soil samples were analyzed for PCBs (one sample from each boring completed on the West Side, plus a field duplicate). PCBs were not detected in any of the samples submitted for analysis.

Metals & Cyanide

A total of four site characterization soil samples were analyzed for TAL metals: SOIL-SC020(8'-12') and its duplicate, SOIL-DUP-SC002; SOIL-SC025(8'-12'); and SOIL-SC028(8'-12'). Several metals were detected in each sample; however, arsenic was the only metal detected at a concentration exceeding its Industrial Use SCO. Arsenic was detected in sample SOIL-SC020(8'-12') at a concentration of 20.4 ppm, exceeding the Industrial Use SCO of 16 ppm. The sampling location and corresponding arsenic concentration are shown graphically on Figure 4.

A total of 12 site characterization soil samples were analyzed for total cyanide (one sample from each boring completed on the West Side, plus a field duplicate). A higher number of samples were analyzed for total cyanide as compared to TAL metals on this portion of the Site based on historical use for coal gasification operations. Total cyanide was detected in the following five samples, at concentrations ranging from an estimated 0.97 ppm to 8.3 ppm: SOIL SC020(8'-12') and its duplicate which were located near the western property boundary, to the northwest of the larger gas holder structure; SOIL-SC021(8'-10') which was located on the interior side of the larger gas holder wall; SOIL-SC023(8'-10') which was located near the western property boundary, to the northwest of the smaller gas holder structure; and SOIL-SC024(8'-10') which was located on the interior side of the smaller gas holder wall. Detected concentrations of total cyanide were well below the Industrial Use SCO.

PFAS and 1,4-Dioxane

A total of four site characterization soil samples were analyzed for PFAS and 1,4-Dioxane from the West Side: SOIL-SC020(8'-12') and its duplicate, SOIL-DUP-SC002; SOIL-SC025(8'-12'); and SOIL-SC028(8'-12'). The compound PFOA was detected in three of the four samples. The reported PFOA concentrations were 804 ppt and 636 ppt in samples SOIL-SC020(8'-12') and the duplicate, respectively, and 1,810 ppt in sample SOIL-SC028(8'-12'). The compound perfluorohexanoic acid (PFHxA) was detected in sample SOIL-SC025 at a concentration of 109 ppt. No other PFAS were detected in these samples. Detected PFAS and their locations are shown graphically on Figure 5.

The compound 1,4-Dioxane was not detected in any of the 4 above-noted samples.

5.5 GEOLOGY AND HYDROGEOLOGY

Figure 7 presents a typical stratigraphic section that summarizes geologic materials encountered during the groundwater SC geologic borings. Overburden units at the Site typically consist of an upper sand unit with lesser amounts of gravel and silt. The upper sandy layer is underlain by a clay and silt unit intermittently interbedded with glacial till and laterally continuous across most of the Site. The clay and silt units are generally underlain by a lower sand and gravel unit with interbedded sandy silt beds, except on the southern end of the Site where the lower sand and gravel unit was not encountered. The lower sand and gravel unit is typically underlain by a diamict unit of varying thickness. A glacial till unit of varying thickness is typically found above the bedrock. Bedrock (Woolamsic Shale) beneath the Site is dark gray to black slate or phyllite, and typically weathered at the boundary between overburden and competent rock.

Figure 8 shows the interpreted thickness of the clay and silt unit between the upper sandy unit and lower sands and gravels based on soil boring logs and spline interpolation methods using ArcGIS software.

Figure 9 shows the interpreted bedrock surface elevation contour map based on soil boring logs and spline interpolation methods using ArcGIS software. Depth to bedrock is variable from south to north across the Site. Bedrock occurs at approximately 75 feet bgs on the south dipping to approximately 145 feet bgs near the middle and then rising up to approximately 25 feet bgs on the north adjacent to the Hoosic River. Figure 9 also shows the orientations and extents of geologic cross sections A-A' (Figure 10) B-B' (Figure 11) and C-C' (Figure 12) across the Site.

The cross sections depict the distribution and geometry of the overburden deposits and bedrock surface. Similar to the bedrock surface, overburden thickness beneath the Site is also variable, mirroring the depth to bedrock across the Site. The overburden sequence represents a proglacial depositional environment with indications of ice sheet advance and recession evidenced by successional layers glacial outwash sands and gravels, diamict (glacial till deposits), glaciolaustrine silt and clay deposits capped with shallow post-glacial alluvial riverine deposits and fill at the ground surface.

Groundwater is encountered in the overburden at the Site at depths of approximately 10 to 15 feet bgs. Groundwater elevations from shallow overburden monitoring wells ("A" Wells) and mapped groundwater contours are shown in Figure 13 and indicate that groundwater flow in the shallow sandy overburden unit is towards the north and west (i.e., towards the Hoosic River). A

potentiometric groundwater contour map for the deep groundwater was prepared using the groundwater elevations from the deeper overburden monitoring wells ("B" Wells) and mapped groundwater potentiometric contours are shown in Figure 14 and also indicate that groundwater flow in the deeper sand and gravel overburden unit is towards the northwest (i.e., towards the Hoosic River).
Table 7 presents vertical gradients calculated using groundwater elevations and screened interval elevations for well pairs and triplets across the Site. A negative vertical gradient indicates a net potential for upward groundwater flow, whereas a positive vertical gradient indicates net potential for downward groundwater flow. These data also show that the vertical gradient is typically negative and ranges from 0.002 to 0.061 (dimensionless) indicating a net potential for downward groundwater flow from the upper sandy unit through the clay and silt unit towards the lower sand and gravel unit.

The upper sandy unit at the Site is an unconfined hydrogeologic unit, the clay and silt unit is considered to be a leaky aquitard, and the lower sand and gravel unit is considered to be a semi-confined hydrogeologic unit.

Groundwater in the unconsolidated overburden flows toward the Hoosic River. Groundwater flow in bedrock occurs predominantly through joints, fractures, faults, and foliation in the bedrock.

5.6 GROUNDWATER SAMPLE ANALYTIAL RESULTS

Analytical results for groundwater samples collected from both the Waterloo APS™ profiling and monitoring wells are presented in Tables 8 through 11, graphically depicted in Figures 15 through 24, and discussed in the following sections.

5.6.1 Volatile Organic Compounds

5.6.1.1 VOCs in Waterloo APS™ Groundwater Samples

The analytical results for VOCs from 23 discrete depth Waterloo APS™ groundwater profile samples are presented in Table 8.

No VOCs were detected in groundwater at concentrations that exceed their respective NY Class GA standards in groundwater samples collected from FS-APS-01 through FS-APS-03, FS-APS-09, and FS-APS-010.

VOCs were detected at concentrations exceeding their respective NY Class GA Standards and guidance values in groundwater samples collected from profile locations FS-APS-004 to FS-APS-008 and FS-APS-011 and included one or more of the following: trichloroethene (TCE), trichloroethane (TCA); 1,1- dichloroethane (1,1-DCA), cis-1,2- dichloroethane (cis-1,2-DCE), and 1,1-dichloroethene (1,1-DCE). TCE was detected at the highest concentrations ranging from 190 to 1,100 micrograms per liter µg/L.
Several other VOCs were detected in groundwater at concentrations below their respective NYS Class GA Standards and guidance values.

5.6.1.2 VOCs in Groundwater Monitoring Well Samples

The analytical results for VOCs from 22 groundwater samples collected from the monitoring wells are presented in Table 9. Total VOC results are posted on Figure 15. Total VOCs concentrations are posted adjacent to each well screen on cross sections A-A', B-B' and C-C' presented in Figures 16, 17 and 18, respectively.

No VOCs were detected in groundwater at concentrations that exceed their respective NY Class GA standards and guidance values in groundwater samples collected from monitoring wells FS-MW-3, FS-MW-4, FS-MW-001A, FS-MW-002A & -002C, FS-MW-003A & -003B, FS-MW-005A, FS-MW-007A, FS-MW-009C, and FS-MW-012A & -012B. Generally, VOCs are absent or detected in low concentrations in the shallowest wells screened in the uppermost sand and gravel unit.

VOCs were detected at concentrations exceeding their respective NY Class GA Standards in groundwater samples collected from monitoring wells FS-MW-1, FS-MW-005B, FS-MW-005C, FS-MW-007B, FS-MW-007C, FS-MW-008B, FS-MW-008B, FS-MW-011A, FS-MW-012C, and FS-MW-013A & -013B and included one or more of the following: TCE, TCA; 1,1-DCA, cis-1,2-DCE, and 1,1-DCE. TCE was detected at the highest concentrations ranging from 5.1 to 1,300 µg/L.

Several other VOCs were detected in groundwater at concentrations below their respective NYS Class GA Standards.

5.6.2 Semi-Volatile Organic Compounds

5.6.2.1 SVOCs in Waterloo APS^{TM} Groundwater Samples

The analytical results for SVOCs from 23 discrete depth Waterloo APS™ groundwater profile samples are presented in Table 8.

No SVOCs were detected in groundwater at concentrations that exceed their respective NY Class GA standards.

1,4-Dioxane was detected in groundwater samples collected from FS-APS-003 through FS-APS-008, and FS-APS-011 at concentrations ranging from 0.12 µg/L to 3.4 µg/L. No NY Class GA standard currently exists for 1,4-Dioxane.

5.6.2.2 SVOCs in Groundwater Monitoring Well Samples

The analytical results for SVOCs from 22 groundwater samples collected from the monitoring wells are presented in Table 9.

Bis(2-ethylhexyl) phthalate was detected at a concentration exceeding its respective NY Class GA Standard at a concentration of 11 µg/L at FS-MW-009C. No other SVOCs were detected in groundwater at concentrations that exceed their respective NY Class GA standards. Figure 19 shows the location of the one SVOC exceedance.

1,4-dioxane was detected in groundwater samples collected from collected from monitoring wells FS-MW-1, FS-MW-005B & -005C, FS-MW-007B & -007C, FS-MW-008B, FS-MW-012C, FS-MW-013A & -013B at concentrations ranging from 0.24 µg/L to 3.7 µg/L. No NY Class GA standard currently exists for 1,4-dioxane.

5.6.3 Pesticides

5.6.3.1 Pesticides in Waterloo APS^{TM} Groundwater Samples

The analytical results for pesticides from 23 Waterloo APS™ groundwater profile samples are presented in Table 8. No pesticides were detected at concentrations above their respective NY Class GA Standard.

5.6.3.2 Pesticides in Groundwater Monitoring Well Samples

The analytical results for Pesticides from 22 groundwater samples collected from the monitoring wells are presented in Table 9.

Alpha hexachlorocyclohaxane was detected in the groundwater sample collected from monitoring well FS-MW-012B at a concentration of 0.01J µg/L that is equal to its NY Class GA Standard of 0.01J µg/L.

No other pesticides were detected in groundwater at concentrations that exceed their respective NY Class GA standards.

5.6.4 Polychlorinated Biphenyls (PCBs)

5.6.4.1 PCBs Waterloo APS™ Groundwater Samples

The analytical results for PCBs from 23 Waterloo APS™ groundwater profile samples are presented in Table 8. No PCBs were detected in the groundwater samples.

5.6.4.2 PCBs in Groundwater Monitoring Well Samples

The analytical results for pesticides from 22 groundwater samples collected on- and off-site are presented in Table 9. No PCBs were detected in the groundwater samples.

5.6.5 Metals

5.6.5.1 Metals in Waterloo APS™ Groundwater Samples

The analytical results for metals from 23 Waterloo APS™ groundwater samples are presented in Table 8.

Seven metals (cadmium, copper, iron, lead manganese, nickel and sodium) were found in one or more Waterloo APS™ groundwater samples at concentration exceeding their respective NY Class GA Standard. Magnesium was detected at a concentration exceeding its NY Class GA Guidance value.

The concentration of copper (58.3 milligrams per liter {mg/L}) in the shallow groundwater sample collected at FS-APS-004 prompted NYSDEC to request installation of temporary wells FS-TMW-001 through FS-TMW-004 in an attempt to delineate the presence of elevated levels of copper in groundwater in the vicinity of this location.

Several other metals were detected at concentrations below their respective NY Class GA Standard or guidance value.

5.6.5.2 Metals in Groundwater Monitoring Well Samples

The analytical results for metals from 22 groundwater samples collected from monitoring wells are presented in Table 9.

Ten metals (arsenic, cadmium, chromium, copper, iron, lead, manganese, mercury, nickel and sodium) were found in one or more groundwater monitoring well samples at concentration exceeding their respective NY Class GA Standard. Beryllium and magnesium were detected in one or more groundwater monitoring well samples at concentrations exceeding their respective NY Class GA Guidance values.

Temporary well FS-TMW-002 was not sampled due to a decline in groundwater level at that location between the time the well was installed and developed, and the groundwater monitoring well sampling event. Copper was detected in groundwater samples collected from wells FS-TMW-001, -003 and -004 as well as FS-MW-005A, -012A and -012B at concentrations from ranging from 2.5 mg/L to 86.2 mg/L which exceed its NY Class GA Guidance Value of 0.2 mg/L.

Several other metals were detected at concentrations below their respective NY Class GA Guidance values.

Figure 20 illustrates that exceedances of the NY Class GA Groundwater Standard for copper detected in groundwater samples from all well locations.

5.6.6 Total Cyanide

5.6.6.1 Total Cyanide in Waterloo APS^{TM} Groundwater Samples

The analytical results for total cyanide from 23 Waterloo APS™ groundwater samples are presented in Table 8.

Total Cyanide was detected in Waterloo APS™ groundwater samples at five locations: FS-APS-003, FS-APS-006, FS-APS-007, FS-APS-008 and FS-APS-011 at concentrations ranging from 0.0054 mg/L to 0.019 mg/L which are all below the 0.2 mg/L NYS GA Standard.

5.6.6.2 Total Cyanide in Groundwater Monitoring Well Samples

The analytical results for total cyanide in 22 groundwater monitoring well samples are presented in Table 9.

Total Cyanide was detected in groundwater samples collected from at six groundwater monitoring wells (FS-MW-002A, FS-MW-007A FS-MW-008B FS-MW-012B FS-MW-1 and FS-MW-3) at concentrations ranging from 0.0055 mg/L to 0.0078 mg/L which are all below the 0.2 mg/L NYS GA Standard.

5.6.7 Total Organic Carbon (TOC) and pH

5.6.7.1 TOC and pH in Waterloo APS™ Groundwater Samples

The analytical results for TOC and pH from groundwater samples are presented in Table 10.

The pH values in the 23 on-site Waterloo APS™ samples ranged from 5.33 to 8.22. The pH of two samples (FS-APS-001 and FS-APS-004) were below the NYS Class GA Standard range of 6.5 to 8.5.

Detected TOC concentrations ranged from 0.44 to 3.2 mg/L.

5.6.7.2 TOC and pH in Groundwater Monitoring Well Samples

The analytical results for TOC and pH from groundwater monitoring well samples are presented in Table 11.

The pH values in on-site groundwater ranged from 6.54 to 7.88, which are within the NYS Class GA Standard range of 6.5 to 8.5.

TOC concentrations ranged from 0.54 to 2.4 mg/L.

5.6.8 PFOA and Other PFAS

5.6.8.1 PFOA and Other PFAS in Waterloo APS™ Groundwater Samples

The analytical results for PFOA and other PFAS from 23 discrete depth Waterloo APS™ groundwater profile samples plus duplicates are presented in Table 10. PFOA concentrations in

groundwater ranged from 14 to 2,500 J ng/L. The highest concentration of PFOA was detected in the lower sand and gravel unit at location FS-APS-011.

PFOS concentrations ranged from below the detection limit to a maximum concentration of 12 ng/L.

5.6.8.2 PFOA and Other PFAS in Groundwater Monitoring Samples

The analytical results for PFOA and other PFAS from groundwater samples collected from 22 monitoring wells are presented in Table 11. PFOA results are posted on Figure 21. Total PFOA concentrations are posted adjacent to each well screen on cross sections A-A', B-B' and C-C' presented in Figures 22, 23 and 24, respectively.

PFOA concentrations in groundwater ranged from below the detection limit to 2,200 ng/L, which is similar to the range of 14 to 2,500 J ng/L observed in the Waterloo APS™ groundwater profile sampling. The highest concentration of PFOA was detected at water table well FS-MW-4, one of the three pre-existing wells in and around the property.

PFOS was detected in 15 of the 22 groundwater samples. Concentrations of PFOS ranged from below the detection limit to a maximum concentration of 11 ng/L.

5.7 FREE-PHASE OIL SAMPLE ANALYTICAL RESULTS

As noted in Sections 4.7.1 and 4.73, a minimal amount free-phase oil was observed in the drilling water return to the mud pan during drilling of the exploratory soil boring and installation of groundwater monitoring well FS-MW-007A. The amount of oil was minimal and it was necessary to skim the oil off the water surface in several drums used to contain the water from the drill pan in order to obtain enough sample volume for the analytical laboratory. Waste classification samples WC-19FS and WC-22FS were analyzed for PFAS, TCL organic and TAL inorganic compounds, product finger printing, and total organic carbon. Analytical result of the oil sample are presented in Table 12.

There were no detections for Pesticides, PCBs, VOCs, SVOCs, or Cyanide. PFOA was detected at a concentration of 0.0016 mg/kg. Petroleum fingerprint analysis detected motor oils at a concentration of 200,000 mg/kg and unknown hydrocarbons at a concentration of 130,000 mg/kg. Several metals were detected at concentrations ranging from 0.27 to 58.1 mg/kg, with the two highest concentrations being sodium and calcium. TOC was detected at a concentration of 79,900 mg/kg.

5.8 ASSESSMENT OF DATA QUALITY

5.8.1 Data Quality Objectives

Data Quality Objectives (DQOs) are qualitative and quantitative criteria used to support the decision-making process. DQOs define the uncertainty in analytical data and consider precision, accuracy, representatives, completeness, and comparability (PARCC):

- **Precision** is a measure of mutual agreement among measurements of the same property usually under prescribed similar conditions. Precision is best expressed in terms of the standard deviation.
- **Accuracy** is the degree of agreement of a measurement (or an average of measurements) with an accepted reference of "true value". Accuracy is an estimate of potential numerical bias (i.e., low or high) in analytical data.
- **Representativeness** expresses the degree to which data parameter variations at a sampling point indicate a process condition, or an environmental condition.
- **Completeness** is a measure of the amount of valid data obtained compared to the amount that was expected to be obtained under correct normal conditions.
- **Comparability** expresses the confidence with which one data set can be compared with another. Comparability is a qualitative measurement. Comparability is assessed by reviewing results or procedures for analytical data that do not agree with expected results.

All soil samples were analyzed by Alpha Analytical Inc.'s (Alpha) laboratory in Westborough, Massachusetts except PFAS analyses was performed by Vista Analytical Laboratory, under subcontract to Alpha. A NYSDEC Analytical Services Protocol (ASP) Category B deliverable was provided for all data.

All groundwater samples were analyzed by Eurofins Lancaster Laboratories Environmental. A NYSDEC ASP Category B deliverable was provided for all data. Table 4 presents each sample and the analytical tests performed. Samples were analyzed for one or more of the following tests. More detailed information about each test is provided in Table 13.

The Quality Assurance Officer carried out a preliminary review of the data packages. The groundwater data were validated by an independent third party, Environmental Data Services, Inc. (EDS), located at 177 Herman Melville Avenue, Newport News, Virginia. The review of the sampling data by EDS was performed in accordance with the:

- Analytical methods;
- NYSDEC ASP (NYSDEC, 2010a);

- USEPA CLP National Functional Guidelines for Organic Superfund Data Review (USEPA, 2017a);
- USEPA CLP National Functional Guidelines for Inorganic Superfund Data Review (USEPA, 2017b);
- Applicable USEPA Region II Data Review Standard Operating Procedures; and
- Reviewer's professional judgment.

The order in which the aforementioned guidance documents and/or criteria were listed as being used for validation does not imply a hierarchy of reliance. The most comprehensive reference sources were used to perform a complete data validation.

5.8.2 Data Usability

Data validation reports (DVRs) were prepared for all samples based upon the data review. The DVRs consist of a section that contains an assessment of the deliverables, followed by a section that describes the analytical results and any qualifications that should be considered when using the data. The DVRs highlight the data results that did not meet QC limits and therefore required data qualification. These tables include information such as, blank contamination, surrogate recoveries, and internal standard area counts that did not meet QC criteria.

The following items/criteria were reviewed for Organics:

- Case narrative and deliverables compliance;
- Holding times both technical and procedural and sample preservation (including pH and temperature);
- System Monitoring Compound (Surrogate) recoveries and summaries;
- Matrix Spike/Matrix Spike Duplicate (MS/MSD) results, recoveries and summaries;
- Laboratory Control Sample (LCS) or Blank spike (BS) results, recoveries and summaries;
- Method blank results and summaries;
- Gas Chromatography (GC)/Mass Spectroscopy (MS) tuning and performance;
- Initial and continuing calibration summaries;
- Internal standard areas, retention times and summaries;
- Field and Trip Blank Data when applicable;
- Blind Field Duplicate sample results when applicable
- Organic analysis data sheets (Form I);

- GC/MS chromatograms, mass spectra and quantitation reports
- Quantitation/detection limits; and
- Qualitative and quantitative compound identification.

The following items/criteria were reviewed for the Inorganics:

- Case narrative and deliverable requirements;
- Holding times and sample preservation;
- Detection limits;
- Inorganic analysis data sheets (Form I);
- Initial and continuing calibration verifications;
- Contract Required Detection Limit (CRDL) standard analysis;
- Lab blank data;
- Inductively Coupled Plasma Spectroscopy (ICP) interference check sample (ICS) analysis;
- Matrix Spike analysis;
- Matrix Duplicate analysis;
- LCS results;
- ICP serial dilution analysis;
- Field Blank results when applicable; and
- Blind Field Duplicate results when applicable.

Qualification of data, where appropriate, was made by the use of qualifier codes based upon the data validation process. These qualifiers are defined in the data tables where used and serve as an indication of the qualitative and quantitative reliability of the data.

The final review of the all DVRs was performed by an ERM or CHA Quality Assurance Officer. The validation indicated that all data are valid and usable for the purposes of the SC with the few exceptions described in the DVRs.

According to the laboratory job narratives, all samples were received within temperature requirements and holding times. Refer to individual laboratory analytical reports in Appendix D for detailed information contained within the job narratives. The DUSRs associated with the site characterization samples are included in Appendix F. As a result of the validation process, some

analytical data were qualified as estimated (J, J+, J-, UJ). All analytical data were considered usable except the following, which were qualified as "rejected, unusable" (R):

- The "not detected" results for 15 acid extractable compounds in sample "SOIL-SC024(8'-10');
- The positive pesticide results for heptachlor epoxide and endosulfan sulfate in sample "SOIL-SC023(12'-13');
- The positive pesticide result for endosulfan II and the "not detected" PFAS results for PFDS and FOSA in sample "SOIL-DUP-SC002";
- The positive pesticide results for dieldrin and endosulfan II in sample "SOIL-S105A1"; and
- The positive pesticide results for delta-BHC in samples "SOIL-B113" and "SOIL-S150".

All data that are not qualified rejected, unusable (R) are considered usable, with estimated (J, J+, J- or UJ) data associated with a higher level of quantitative uncertainty.

Data Quality Objectives (DQOs) are qualitative and quantitative criteria used to support the decision-making process. DQOs define the uncertainty in analytical data and consider precision, accuracy, representatives, completeness, and comparability (PARCC).

Soil Field Duplicate Samples (CHA)

For quality assurance/quality control purposes, field duplicate soil samples were collected and analyzed during the IRM activities and the soil characterization boring program. One field duplicate sample was collected and analyzed for site characterization parameters during the IRM activities. The sample was identified as "Soil-DUP103" and was a duplicate of sample "Soil-S142", collected from the copper press area (AOC10).

Two field duplicate soil samples were collected during the soil boring program in May 2018. Samples "SOIL-DUP-SC001" from the East Side, a duplicate of sample SC007(8'-12') and "SOIL-DUP-SC002" from the West Side, a duplicate of sample SC020(8'-12'), were collected and analyzed for the following parameters: TCL VOCs; TCL SVOCs; TCL pesticides; TAL metals; PCBs; total cyanide; 1,4-dioxane; and PFAS.

An additional field duplicate sample, identified as "SOIL-DUP104", a duplicate of sample "SOIL-SC032(4'-8'), was collected during the supplemental soil boring work in the vicinity of boring SC004 in July 2018, and was analyzed for arsenic and PFAS only.

For each duplicate sample, analytical results were compared to the results of its corresponding primary sample and a relative percent difference (RPD) was calculated for each parameter. The RPD is used to express the precision of measurements between detected analytes in a sample and its duplicate. An RPD of 20% is generally considered the maximum allowable RPD. Calculated RPDs for detected analytes in the above-referenced sample sets were below 20% except for three analytes in the "SOIL-S142" and "SOIL-DUP103" sample pair and two analytes in both the "SOIL-SC007(8'-12')" and "SOIL-DUP-SC001" sample pair and the "SC032(4'-8')" and "SOIL-DUP104" sample pair. In addition, several analytes exhibited RPDs greater than 20% in the "SOIL-SC020(8'-12')" and "SOIL-DUP-SC002" sample pair. Specific analytes in each sample pair and their RPD values are included in Table 14, attached.

Elevated RPDs are not uncommon with soil sampling data, based on non-homogeneity of soil samples. The large number of RPDs above 20% in the "SOIL-SC020(8'-12')" and "SOIL-DUP-SC002" sample pair is likely attributable to the variability within the sample matrix, as the soil conditions within the 8'-12' depth interval included industrial fill materials. The analytical data are considered usable; however, with a higher degree of quantitative uncertainty.

Groundwater Field Duplicate Samples (ERM)

As part of the data QA/QC objectives, ERM collected field duplicate APS and groundwater monitoring well water samples during the SC activities.

Two field duplicate samples were collected during the initial permeability profiling/sampling activities. These samples were identified as FS-APS-DUP1(10312018) and FS-APS-DUP2(11082018) which were collected alongside FS-APS-003(14)(10312018) and FS-APS-005(83.1)(11082018), respectively.

Two field duplicate samples were collected during the groundwater monitoring well sampling event. Theses samples were identified as DUP-07242019 and DUP-07232019 which were collected alongside FS-MW-002A(11.5)(07242019) and FS-MW-008B(37.5)(07232019), respectively.

No significant deviations were present between origin samples and their field duplicates.

5.9 UNDERGROUND STORAGE TANK GEOPHYSICAL SURVEYS

The geophysical survey performed by NYLD located subsurface targets approximately five feet bgs in an area measuring approximately 40 ft by 20 ft. This footprint is large enough to accommodate both the 15,000-gallon and 1,500-gallon USTs if laid end to end. NYSEC Bulk Storage Data records and a report from NYLD showing the results is presented in Appendix G.

5.10 DRONE INFRARED SURVEY RESULTS

A summary of the infrared survey screening results is presented in Appendix H (Figures 25a-k) that indicate multiple elevated temperature shoreline areas which represent potential groundwater discharge to the Hoosic River to be considered for further empirical evaluation. These locations were qualified based on the presence of relatively warm temperature signatures along the riverbank or the base of the flood control wall system. Thermal images were compared to high-resolution orthoimages to eliminate the possibility of false temperature signatures such as sunlight reflecting off the water surface.

6.0 FINDINGS

6.1 GEOLOGY

- The overburden sequence represents a proglacial depositional environment with indications of ice sheet advance and recession evidenced by successional layers of glacial outwash sands and gravels, glacial till, glaciolacustrine silt and clay deposits capped with shallow post-glacial alluvial riverine deposits and fill at the ground surface.
- Overburden units at the Site typically consist of an upper sand unit with lesser amounts of gravel and silt. The upper sandy layer is underlain by a clay and silt unit intermittently interbedded with glacial till and laterally continuous across most of the Site. The clay and silt units are typically underlain by a lower sand and gravel unit with interbedded sandy silt beds, except on the southern end of the Site where the lower sand and gravel unit was not encountered. The lower sand and gravel unit is typically underlain by a diamict unit of varying thickness. A glacial unit of varying thickness is typically found above the bedrock. Bedrock (Woolamsic Shale) beneath the Site is dark gray to black slate or phyllite, and typically weathered at the boundary between overburden and competent rock.
- Depth to bedrock is variable from south to north across the Site. Bedrock occurs at approximately 75 feet bgs on the south dipping to approximately 145 feet bgs near the middle and then rising up to approximately 25 feet bgs on the north adjacent to the Hoosic River. Accordingly, overburden thicknesses mirror the depths to bedrock across the Site.

6.2 HYDROGEOLOGY

- Groundwater is encountered in the overburden at the Site at depths of approximately 10 to 15 feet bgs. Groundwater flow in the shallow sandy overburden and deeper sand and gravel units is towards the north and west (i.e., towards the Hoosic River). Groundwater elevation data indicate that the vertical gradients across the Site are typically negative (-0.002 to -0.061 {(dimensionless}) and indicate a net potential for downward groundwater flow from the upper sandy unit through the clay and silt unit towards the lower sand and gravel unit.
- The upper sandy unit at the Site is an unconfined hydrogeologic unit, and the lower sand and gravel unit is considered to be a semi-confined hydrogeologic unit. Groundwater flow in bedrock occurs predominantly through joints, fractures, faults, and foliation in the bedrock.

6.3 SUBSURFACE SOIL QUALITY

Soil sampling results indicate the following:

VOCs:

- On the east side of the Site, detected VOCs were limited to acetone, carbon disulfide, chloroform, cyclohexane, methyl ethyl ketone and toluene. One or more of these compounds was detected in nine of the collected samples (at depths greater than 4 feet bgs); however, no VOCs were detected at concentrations exceeding the Commercial or Industrial Use SCOs. No chlorinated VOCs were detected.
- On the west side of the Site, detected VOCs included a number of VOCs but none of these compounds was detected at concentrations exceeding their respective Commercial and Industrial Use SCOs. No chlorinated VOCs were detected.

SVOCs:

- On the east side of the Site, detected SVOCs were found in six of the 25 samples submitted for analysis. In five of these six samples, multiple SVOCs were detected at estimated concentrations above the Method Detection Limit (MDL), but below the laboratory Reporting Limit (RL). In sample SOIL-SC004 (4'-8') only benzo(a)pyrene detected at a concentration of 1.7 ppm, slightly exceeded its Industrial Use SCO of 1.1 ppm.

- On the west side of the Site, one or more SVOCs were detected in 10 of the 12 samples submitted for analysis. Specifically, the following six SVOCs were detected at concentrations exceeding the Industrial Use SCOs in one or more samples: benzo(a)anthracene; benzo(a)pyrene; benzo(b)fluoranthene; chrysene; dibenzo(a,h)anthracene; and indeno(1,2,3-cd)pyrene. Only dibenzo(a,h)anthracene in one sample exceeded the Commercial SCO at a depth of 12-13 feet bgs.

Pesticides:

- On the east side of the Site, a total of 25 site characterization soil samples were analyzed for TCL Pesticides: 19 samples from the IRM activities; and 6 samples from the soil boring program. Detected pesticides were limited to 4,4'-dichlorodiphenyltrichloroethane (DDT) in the Spent Tank Bottom sample, and delta-BHC in the S118 sample. However, neither of these compounds was detected at a concentration exceeding its Commercial or Industrial Use SCOs.
- On the west side of the Site, pesticides were detected in two of the samples. However, based on data validation, the pesticide results for both samples were rejected and are considered unusable.

PCBs

- On the east side of the Site, PCBs were detected in the S105A1 sample (Treater 4&5 area) and at boring location SC004; however, the detected concentrations did not exceed the Industrial Use SCO.
- On the west side of the Site, A total of 12 site characterization soil samples were analyzed for PCBs but PCBs were not detected in any of the samples submitted for analysis.

Metals

- On the east side of the Site, arsenic was the only metal detected in any of 36 samples at concentrations exceeding its Part 375 Commercial and Industrial Use SCOs. Arsenic exceeded the Commercial and Industrial Use SCO of 16 ppm at the following sampling locations: borings SC004; SC004A; and SC014. Arsenic concentrations at these locations (at depths greater than 4 feet bgs) ranged from 21.9 to 125 ppm. Copper exceeded the Commercial SCO in three samples at depths ranging from 4 to 13 feet below grade.
- Following IRM activities in 12 areas of concern, arsenic remained in several locations where further excavation appeared likely to impact a railroad embankment. Arsenic concentrations at these locations, all at depths greater than 4 feet bgs, ranged from 19.9 to 161 ppm.
- On the west side of the Site, arsenic was detected in sample SOIL-SC020(8'-12') at a concentration of 20.4 ppm, exceeding the Commercial and Industrial Use SCO of 16 ppm. Copper was not present above the Commercial or Industrial SCO in any sample.

Cyanide

- On the east side of the Site, total cyanide was detected in one sample, SOIL-SC004(4'-8') located on the northwestern portion of the Site, at an estimated concentration of 0.27 ppm, which is below the Commercial and Industrial Use SCOs.
- On the west side of the Site, total cyanide was detected in a total of 12 samples, but all results were well below the Commercial and Industrial Use SCOs.

PFAS and 1,4-Dioxane

- On the east Site, at least one PFAS compound was detected in 17 of the 19 samples collected from the IRM activities, and in all the samples collected during the soil boring program.
- PFOA was detected in all but four East Side samples. The highest concentration was detected at the location of boring SC004, on the northwestern portion of the Site.

- On the west side of the Site, PFOA was detected in three of the four samples ranging from 636 to 1,810 ppt. PFHxA was detected in sample SOIL-SC025 at a concentration of 109 ppt. No other PFAS were detected in these samples.
- The compound 1,4-Dioxane was not detected in either the east side or west sides of the Site.

6.4 GROUNDWATER QUALITY

Groundwater monitoring well sampling results indicate:

- **VOCs:** TCE, TCA; 1,1-DCA, cis-1,2-DCE, and 1,1-DCE were detected at concentrations exceeding their respective NYS Class GA Standards in groundwater. Total VOCs ranged from non-detect to 1,956 µg/L. TCE was the predominant VOC detected at concentrations ranging from 5.1 to 1,300 µg/L. Several other VOCs were detected in groundwater at concentrations below their respective NYS Class GA Standards.
- **SVOCs:** Only one SVOC, bis(2-ethylhexyl) phthalate was detected in one well at a concentration of 11 µg/L, which exceeds its respective NYS Class GA Standard. This occurrence may be a result of equipment contamination. No other SVOCs were detected in groundwater at concentrations that exceed their respective NYS Class GA standards.
- **1,4-Dioxane:** 1,4-Dioxane was detected in groundwater samples collected from several monitoring wells at concentrations ranging from 0.24 µg/L to 3.7 µg/L. No NYS Class GA standard currently exists for 1,4-Dioxane.
- **Pesticides:** One pesticide (alpha hexachlorocyclohaxane) was detected in several groundwater samples but only one detection was at a concentration of 0.01J µg/L that is equal to its NYS Class GA Standard of 0.01 µg/L. All other detections were lower estimated concentrations. No other pesticides were detected in groundwater at concentrations that exceed their respective NYS Class GA standards.
- **PCBs: No** PCBs were detected in the groundwater samples.
- **Metals:** Ten metals (arsenic, cadmium, chromium, copper, iron, lead, manganese, mercury, nickel and sodium) were found in one or more groundwater monitoring well samples at concentrations exceeding their respective NYS Class GA Standard. Beryllium and magnesium were detected in one or more groundwater monitoring well samples at concentrations exceeding their respective NYS Class GA Guidance values.

  Seven metals (cadmium, copper, iron, lead, manganese, nickel and sodium) were found in one or more Waterloo APS™ groundwater samples at concentrations exceeding their respective NYS Class GA Standard. Magnesium was detected at a concentration exceeding its NYS Class GA Guidance value.
- Copper was detected in a Waterloo APS™ groundwater profile sample at a concentration of 58.3 mg/L that exceeded its NYS Class GA Guidance Value of 0.2 mg/L. Based on this exceedance, NYSDEC requested installation of four temporary wells (FS-TMW-001

through -004) in an attempt to delineate the presence of elevated levels of copper in groundwater in the vicinity of this location. Copper was detected in groundwater samples collected from wells FS-TMW-001, -003 and -004 as well as FS-MW-005A, -012A and -012B at concentrations from ranging from 2.5 mg/L to 86.2 mg/L which exceed its NYS Class GA Guidance Value of 0.2 mg/L. Several other metals were detected at concentrations below their respective NYS Class GA Guidance. Temporary well FS-TMW-002 was not sampled due to a decline in groundwater level at that location between the time the well was installed and developed, and the groundwater monitoring well sampling event.

- **Cyanide:** Total cyanide was detected in several groundwater samples at concentrations ranging from below the detection limit to 0.0078 mg/L, which are all below the 0.2 mg/L NYS GA Standard. Weak acid dissociable cyanide was detected in several groundwater samples at concentrations ranging from below the detection limit to 0.024 mg/L. No NYS GA Standard or Guidance values are available for weak acid dissociable cyanide.
- **PFOA and PFOS:** PFOA concentrations in groundwater ranged from below the detection limit to 2,200 ng/L, which is similar to the range of 14 to 2,500J ng/L observed in the Waterloo APS™ groundwater profile sampling. PFOS was detected in 15 of the 22 groundwater samples wherein concentrations of PFOS ranged from below the detection limit to a maximum concentration of 11 ng/L.

6.5 FORMER PRODUCTION WELLS

- Up to seven former production wells on the First St. property were reportedly used by Oak Mitsui to supply on-site process water for Oak Mitsui's operations. Seven well locations are identified on a 1999 Site Plan provided by Oak Mitsui, with five of these locations identified as Wells "B", "C", "D" "E" & "F" and two unnamed. The two additional wells are indicated as "capped well" located to the south of Well C, and an unnamed well adjacent to Well B is located within the footprint of the former main facility building. Historical site drawings note the production capacities for Well B as 50 gpm; D as 150 gpm; E as 150 gpm and F as 50 gpm. Well C is listed as "obsolete". No other information has been located pertaining to the construction details or condition of these wells. Efforts to obtain drilling and construction records for the production wells from the drilling company whom reportedly installed the wells were unsuccessful.
- Wells E & F are located within vaults with standard street manholes. Shallow excavations were undertaken to locate Wells "B", "C", "D", and the two unnamed wells. Only Well B was located but found to be damaged at the surface, open and full of what appeared to be building demolition debris. Borehole geophysical logging using optical and acoustical televiewers determined Well E is approximately 82 feet deep with a 10-foot screen set from approximately 72 feet – 82 feet bgs, and Well F is approximately 100 feet deep with a 17-foot screen set from approximately 83 feet – 100 feet. Based on screened intervals, these wells are overburden wells, screened in the deep sand and gravel beneath the Site.

6.6 UNDERGROUND STORAGE TANK

- Historical information indicates two USTs were identified on the Site that include a 15,000-gallon No. 2 fuel oil tank and a 1,500 gallon No. 6 fuel oil tank that were closed-in place in March 1991 and December 1987, respectively. A geophysical survey performed located subsurface targets approximately five feet bgs in an area measuring approximately 40 ft by 20 ft. This footprint is large enough to accommodate both the 15,000-gallon and 1,500-gallon USTs if laid end to end.
- A small amount of free-phase oil was observed during drilling of the exploratory soil boring and installation of groundwater monitoring well (FS-MW-007A) adjacent to the former USTs. Petroleum fingerprint analysis detected motor oils at a concentration of 200,000 mg/kg and unknown hydrocarbons at a concentration of 130,000 mg/kg. No detections of Pesticides, PCBs, VOCs, SVOCs, or Cyanide were reported. PFOA was detected at a concentration of 0.0016 mg/kg. Several metals were detected at concentrations ranging from 0.27 to 58.1 mg/kg, with sodium and calcium present at the two highest concentrations.
- The July 2019 groundwater sampling event, no measurable free-phase product was detected in water table well MW-07A.

6.7 DRONE INFRARED SURVEY RESULTS

- The screening results of the infrared drone survey indicate multiple areas of elevated temperature along the shoreline. These areas represent locations of potential groundwater discharge to the Hoosic River.

7.0 CONCLUSIONS AND RECOMMENDATIONS

Oak Mitsui and Honeywell have conducted an extensive characterization of the Site focusing on soil and groundwater. The detection of arsenic in the soil led to an IRM where soil from 12 areas of concern were excavated. In most cases, the arsenic-contaminated soil was entirely removed. There remain a few locations where further excavation could not safely be completed, but the arsenic in those locations is located at least 4 feet below grade. With respect to other types of contaminants in the soil, no VOCs, PCBs, or Pesticides were detected above Commercial or Industrial SCOs. Only two SVOCs were detected at a concentration exceeding the Industrial Use SCO and both were located greater than 4 feet below grade. PFAS, which currently have no standards, were detected in numerous soil samples across the Site.

The investigation of groundwater was based on the installation and sampling of numerous wells installed in three different hydrostratigraphic zones. A number of chlorinated VOC compounds were found in the groundwater, but concentrations range from non-detect to 6.29 µg/l in the shallowest zone. Higher concentrations of VOCs are present in a deeper sand and gravel unit located beneath a clay aquitard. These results, combined with an absence of VOCs in soils, indicate the Site is not a source of the VOCs.

Both arsenic and copper are metals known to be used at the Site. Arsenic was only detected in one groundwater sample at a concentration exceeding the groundwater standard at the south end of the Site. Copper was detected in concentrations exceeding the groundwater standard in several wells, but none in wells in the most downgradient location position on the Site. Based on the data, it does not appear that either arsenic or copper are migrating off-site in concentrations exceeding their respective groundwater standards.

As noted in Section 2.2, PFOA and PFAS compounds were not known to have been used on-site by Oak Mitsui. However, PFOA was detected in many wells across the Site. While there is some overlap, the concentrations in the shallow wells are generally lower than in the deeper wells (360-1200 ng/l vs. 420-2200 ng/l), respectively

Based on these results, the threat, if any, to human health and the environment can be addressed through installation of a soil cap to prevent exposure to any of the Site contaminants, along with development of Site Management Plan to restrict any use of groundwater from the Site (either for potable or non-potable uses).

8.0 REFERENCES

Cadwell, D.H. and R. J. Dineen, *Surficial Geologic Map of New York*, New York State Geological Survey Map and Chart Series 40., 1987.

CHA Consulting, Inc., Phase 1 and Phase 2 Investigation Report, Oak Mitsui Facility, February 2017.

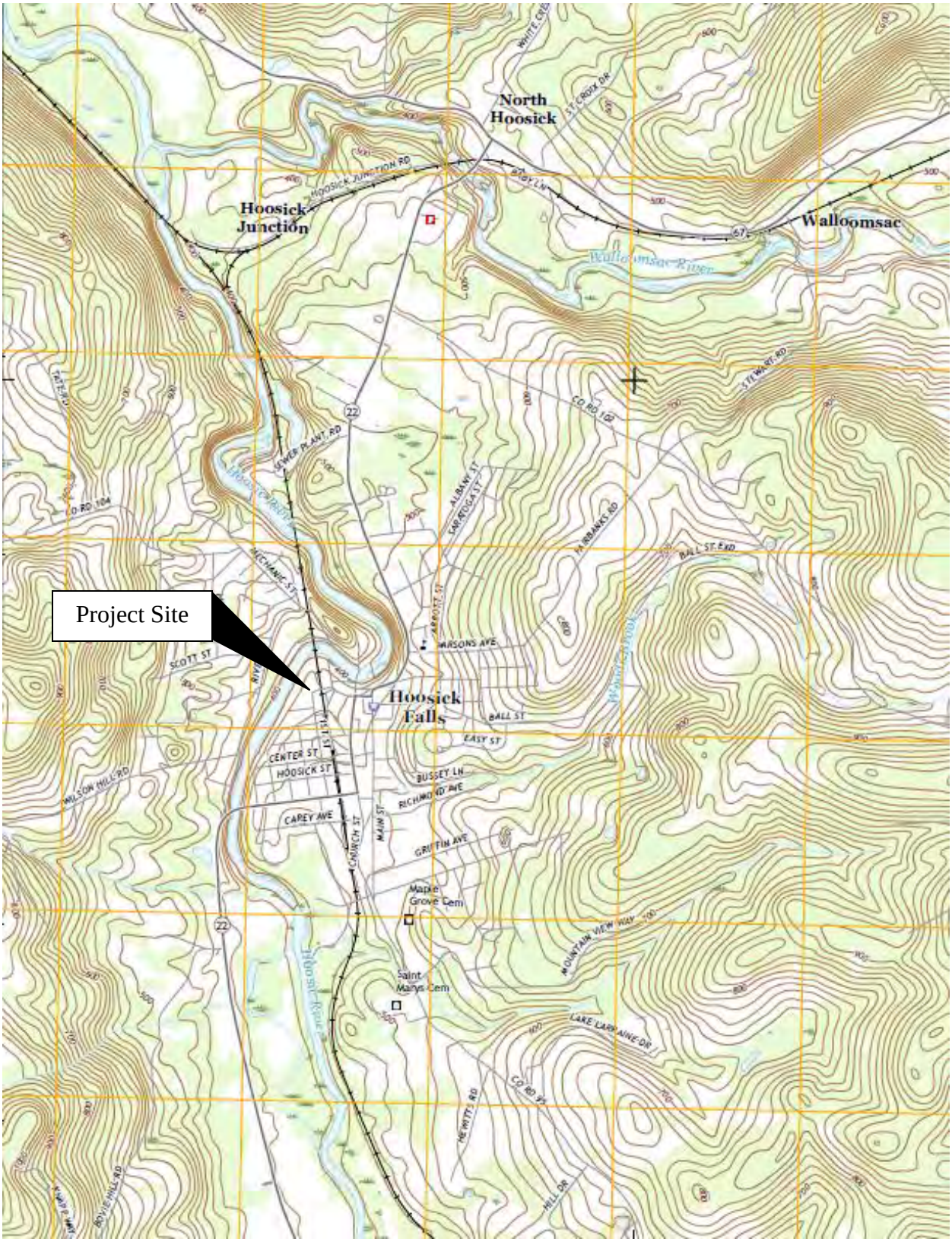
CHA Consulting, Inc., *Site Characterization Work Plan for Oak Mitsui, Site #442052*, April 2018.

CHA Consulting, Inc., *Construction Completion Report, Oak Mitsui Site #442052*, April 2020.

ERM Consulting and Engineering Inc., *Geologic Boring and Well Location Plan*, May 2019

New York State Department of Environmental Conservation, DER-10, Technical Guidance for Site Investigation and Remediation, May 2010.

FIGURES



SOURCE: USGS MapViewer

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CHA

NOT TO SCALE

DATE: January 2019

FIGURE 1 – SITE LOCATION MAP

OAK MITSUI
80 FIRST STREET
HOOSICK FALLS,
RENSSELAER COUNTY, NEW YORK

CHA

MAP NOT TO SCALE

DATE: January 2019

FIGURE 2 – SITE PLAN

OAK MITSUI
80 FIRST STREET
HOOSICK FALLS
RENSSELAER COUNTY, STATE OF NEW YORK

Legend

- Site Boundaries
- Site Characterization Samples Collected During IRM Activities (2017)
- Site Characterization Borings (2018)
- Monitoring Wells
- Gasometer (Gas Holder)

Map ID	Building Use/Type
A	Coal Shed
B	Retort Vessels
C	Generators, Condenser, Tar well, Scrubber, Purifier
D	Storage House

SC034
SC033
SC004
SC004A
SC035
SC031
SC032
SC001
MW-1
SC002
SC003
Pan Am Railroad
SC004
SC005
SC006
SC007
Hoosic River
MW-2
(removed 12/4/17)
B113
S150
SC009
SC010
S140
S142
B111
B110
SC014
S134
B109
Project Site
Spent Tank Bottom
Hoosic River Greenway
SC016
B106
S118
B104A
S117
SC105A1
B103
S111
WEST
EAST
S108
B101A
1st St
SC020
SC021A
SC021
MW-4
MW-3
SC022
SC029
SC030
SC023
SC024A
D
SC024
SC025
C
B
SC027
SC026
A
Residential
1st St
SC028
Nixon St
Surdam St

N

CHA design/construction solutions

Figure 3
Site Characterization Soil Sampling Locations
Oak Mitsui
80 First Street
Hoosick Falls, New York

Scale 1" = 80'

Project No.
31861

Image Courtesy of USGS and Earthstar Geographics SIO © 2014 Nokia ©
Photo Date: 4/14/2017

Legend

- Site Boundaries
- Approx. Excavation Limits
- Soil Sample Location with SCO Exceedance
- Soil Sample Location with No SCO Exceedance
- Monitoring Wells
- Gasometer (Gas Holder)

Note: Site buildings were demolished in 2017

Map ID	Building Use/Type
A	Coal Shed
B	Retort Vessels
C	Generators, Condenser, Tar well, Scrubber, Purifier
D	Storage House

*ppm - parts per million

*J: Result is less than reporting limit (RL) but greater than or equal to the method detection limit (MDL) and the concentration is an approximate

Industrial Use Soil Cleanup Objectives	
Analyte	**Part 375 Ind. Use SCO**
Arsenic	16 ppm
Benzo (a) anthracene	11 ppm
Benzo (a) pyrene	1.1 ppm
Benzo (b) fluoranthene	11 ppm
Chrysene	110 ppm
Dibenzo (a,h) anthracene	1.1 ppm
Indeno (1,2,3-cd) pyrene	11 ppm

SC004A (4'-8')	
Arsenic	21.9 ppm

SC004 (4'-8')	
Arsenic	40.8 ppm
Benzo (a) pyrene	1.7 ppm

SC020 (8'-12') / DUP-SC002	
Arsenic	20.4 ppm
Benzo (a) anthracene	150 ppm J
Benzo (a) pyrene	120 ppm J
Benzo (b) fluoranthene	150 ppm J
Chrysene	120 ppm J
Dibenzo (a,h) anthracene	4.7 ppm J
Indeno (1,2,3-cd) pyrene	77 ppm J

SC021 (8'-10')	
Benzo (a) anthracene	52 ppm
Benzo (a) pyrene	39 ppm
Benzo (b) fluoranthene	48 ppm
Dibenzo (a,h) anthracene	4.4 ppm
Indeno (1,2,3-cd) pyrene	24 ppm

SC023 (12'-13')	
Benzo (a) pyrene	3.9 ppm

Spent Tank (6'-10') North Sidewall East	
Arsenic	68.3 ppm

Spent Tank (6'-10') South Sidewall East	
Arsenic	44.7 ppm

SC014	
Arsenic	125 ppm (4'-5') 91.2 ppm (13'-14')

S136 (5'-8')	
Arsenic	19.9 ppm

S137 (5'-8')	
Arsenic	161 ppm

S132 (2'-5')	
Arsenic	68.3 ppm

S131 (2'-5')	
Arsenic	43.6 ppm

S130 (2'-5')	
Arsenic	107 ppm

B107 (8')	
Arsenic	141 ppm

S115 (8'-12')	
Arsenic	20.6 ppm

Hoosic River
Hoosic River Greenway
Pan Am Railroad
1st St
Nixon St
Surdam St
Residential
MW-1
MW-2 (removed 12/4/17)
MW-3
MW-4
AOC 1
AOC 2
AOC 3
AOC 4
AOC 5
AOC 6
AOC 7
AOC 8
AOC 9
AOC 10
AOC 11
AOC 12
B107
S115
S130
S131
S132
S136
S137
SC004
SC004A
SC014
SC020
SC021
SC023
WEST
EAST
A
B
C
D
N

CHA

Figure 4

NYS Part 375 Industrial Use SCO Exceedances (as of Aug. 2018)
(Site Characterization and IRM Post-Excavation Samples)

Oak Mitsui
80 First Street, Hoosick Falls, New York

Scale 1" = 80'	**Project No. 31861**

Image Courtesy of USGS and Earthstar Geographics SIO © 2014 Nokia ©
Photo Date: 4/14/2017

Legend

- Site Boundaries
- Site Characterization Samples Collected During IRM Activities (2017)
- Site Characterization Borings (2018)
- Monitoring Wells
- Gasometer (Gas Holder)

PFOA	Perfluorooctanoic acid
PFOS	Perfluorooctanesulfonic acid

ADDITIONAL PFAS COMPOUNDS DETECTED ARE LISTED IN TABLE 2

Map ID	Building Use/Type
A	Coal Shed
B	Retort Vessels
C	Generators, Condenser, Tar well, Scrubber, Purifier
D	Storage House

*ppb - parts per billion

*J: Result is less than reporting limit (RL) but greater than or equal to the method detection limit (MDL) and the concentration is an approximate

*U: Not detected

*B: Compound also detected in method blank

N

CHA

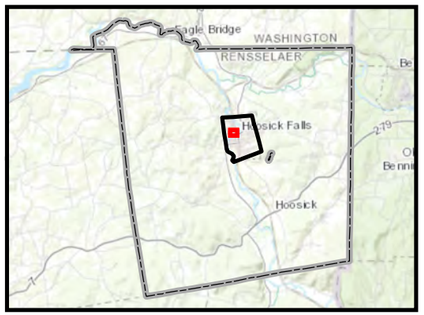
Scale 1" = 80'

Project No. 31861

Figure 5
Site Characterization Soil Sampling - PFOA and PFOS Detections

Oak Mitsui
80 First Street
Hoosick Falls, New York

Image Courtesy of USGS and Earthstar Geographics SIO © 2014 Nokia ©
Photo Date: 4/14/2017



Legend

- Monitoring Well Location
- Temporary Monitoring Well Location
- Historical Production Well Location
- 2018 Waterloo APS Location (Temporary)
- Approximate Property Boundaries
- Tax Parcel Boundary

N

0 25 50 100 150 200
Feet

Figure 6: Site Characterization Groundwater Sampling Locations
80 First St.
Village of Hoosick Falls
New York

ERM

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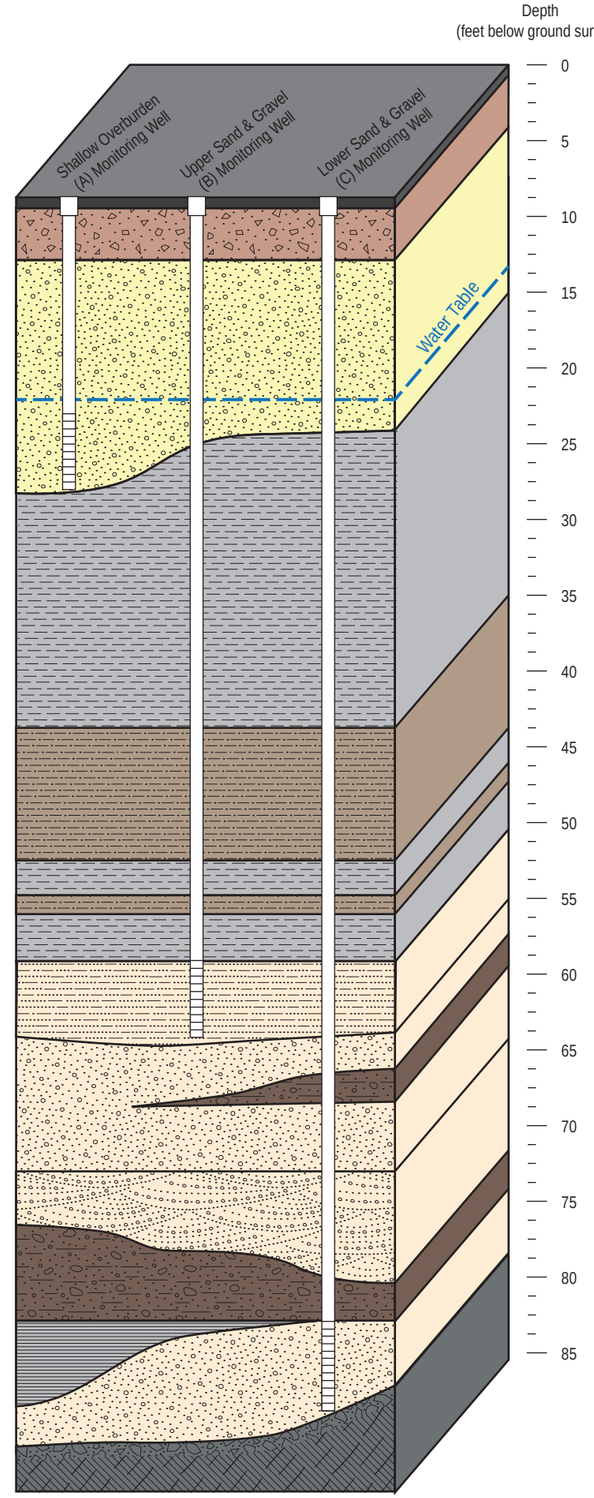
80 First Street Stratigraphy

Hydrogeological Unit	*Geological Unit* [1]	*Lithology (Thickness)*
Shallow Overburden	Fill	Asphalt (0 - 1') Fill: Mixed Sand & Gravel (0 - 13.5') Fine to coarse angular gravel in sand and silt matrix. Slag, brick, & metal debris present.
	Alluvium (al)	Interbedded Sand & Gravel (0 - 23.5') Fine to medium subangular gravels in sand and silt matrix. Thin interbeds of silt and clay.
Semi-Confining Unit	Lacustrine Silt & Clay (lsc_1)	Clay (3 - 71.5') Thinly laminated clay, plastic with variable silt content. Interbedded, discontinious sandy silt member.
Sand & Gravel	Outwash Sand & Gravel (og)	Fine Silty Sand (0.9 - 55') Thinly laminated, silty fine lithic sand, well sorted. Grading to interbedded sand and gravel with depth. Interbedded Gravel & Sand (3.5 - 34') Fine to medium lithic sand with thin sandy silt interbeds. Basal fine to coarse gravel, sub-rounded lithic clasts and sand matrix.
	Till (t)	Diamict (0 - 23') Subangular heterolithic gravel in cohesive silt and clay matrix. Phyllite clast content increases in lower unit, where in contact with bedrock. Dense, commonly dry.
	Lacustrine Silt & Clay (lsc_2)	Silt & Clay Rythmite (0 - 20') Rythmically interbedded silt and clay, dense. Present only in regions of greater overburden thickness.
	Outwash Sand & Gravel (og)	Interbedded Gravel & Sand (0 - 9') Fine to coarse gravel and cobbles with lithic sand and silt matrix. Thin zones of sorted lithic sands. Increasing slate/phyllite fragments with depth.
	Walloomsac Fm. (Ow)	Bedrock Dark gray foliated phyllite. Commonly weathered upper contact.



Notes:

1 - Except for fill, geological unit nomenclature is from the Surficial Geologic Map of New York, Hudson-Mohawk Sheet (Caldwell and Dineen, 1987).

2 - Lithological descriptions, thickness ranges, and approximate water table elevations are from ERM's on-site boring logs.

Explanation

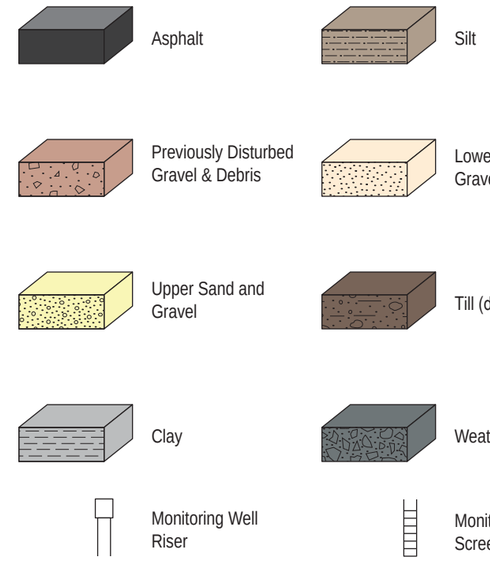
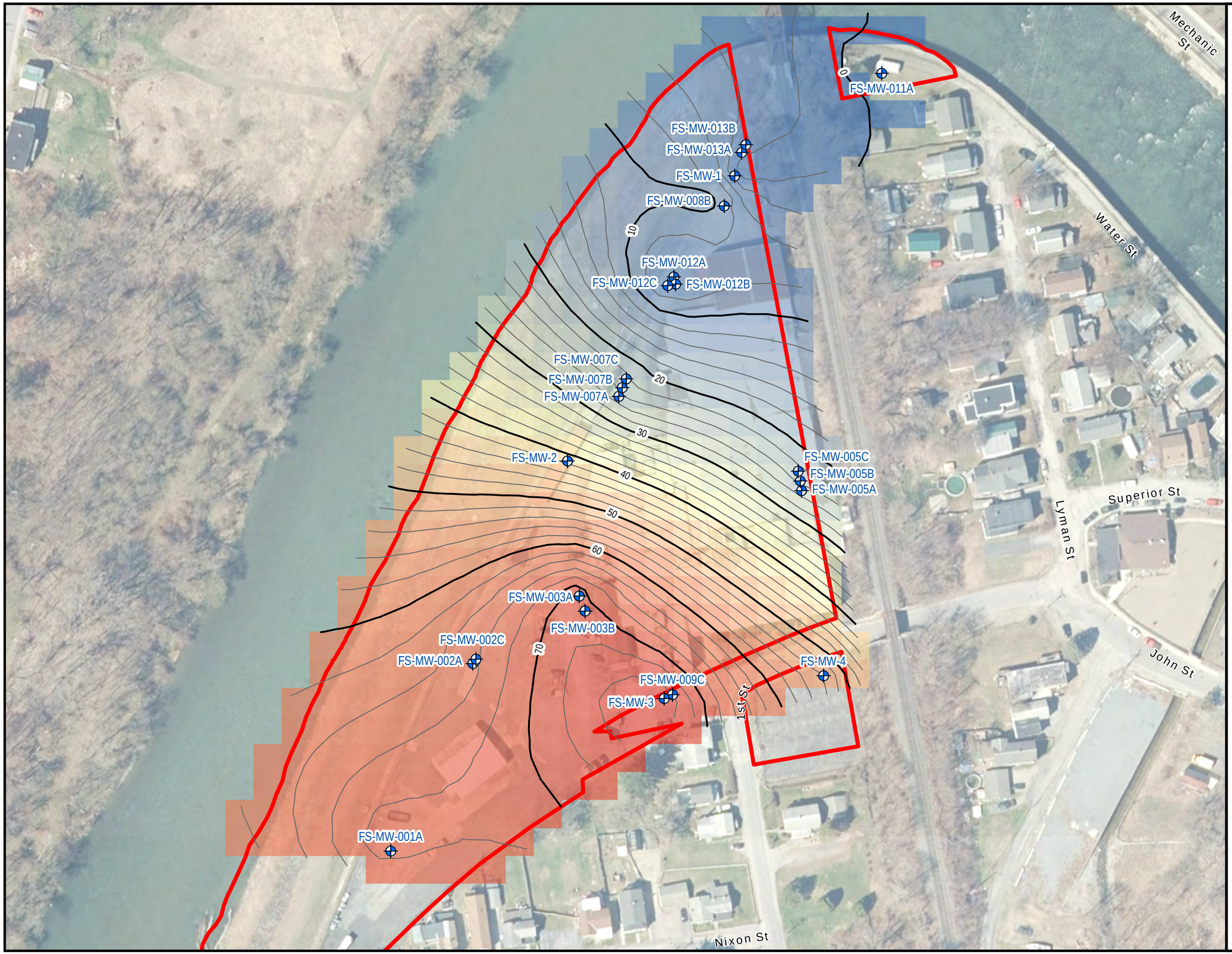
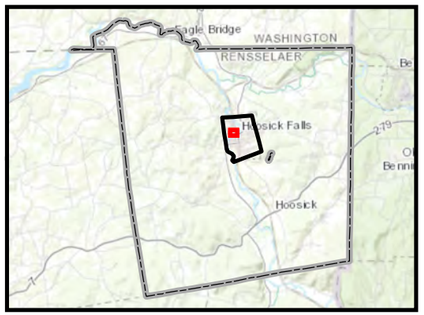


Figure 7: Typical Stratigraphic Section
80 First Street Property
Village of Hoosick Falls
New York

ERM





Legend

- Monitoring Well Location
- Clay Unit Thickness Contour - 10 ft.
- Clay Unit Thicknes Contour - 2 ft.
- Approximate Property Boundaries

Value

- High : 76.4
- Low : 0

NOTES:
- ft. = feet

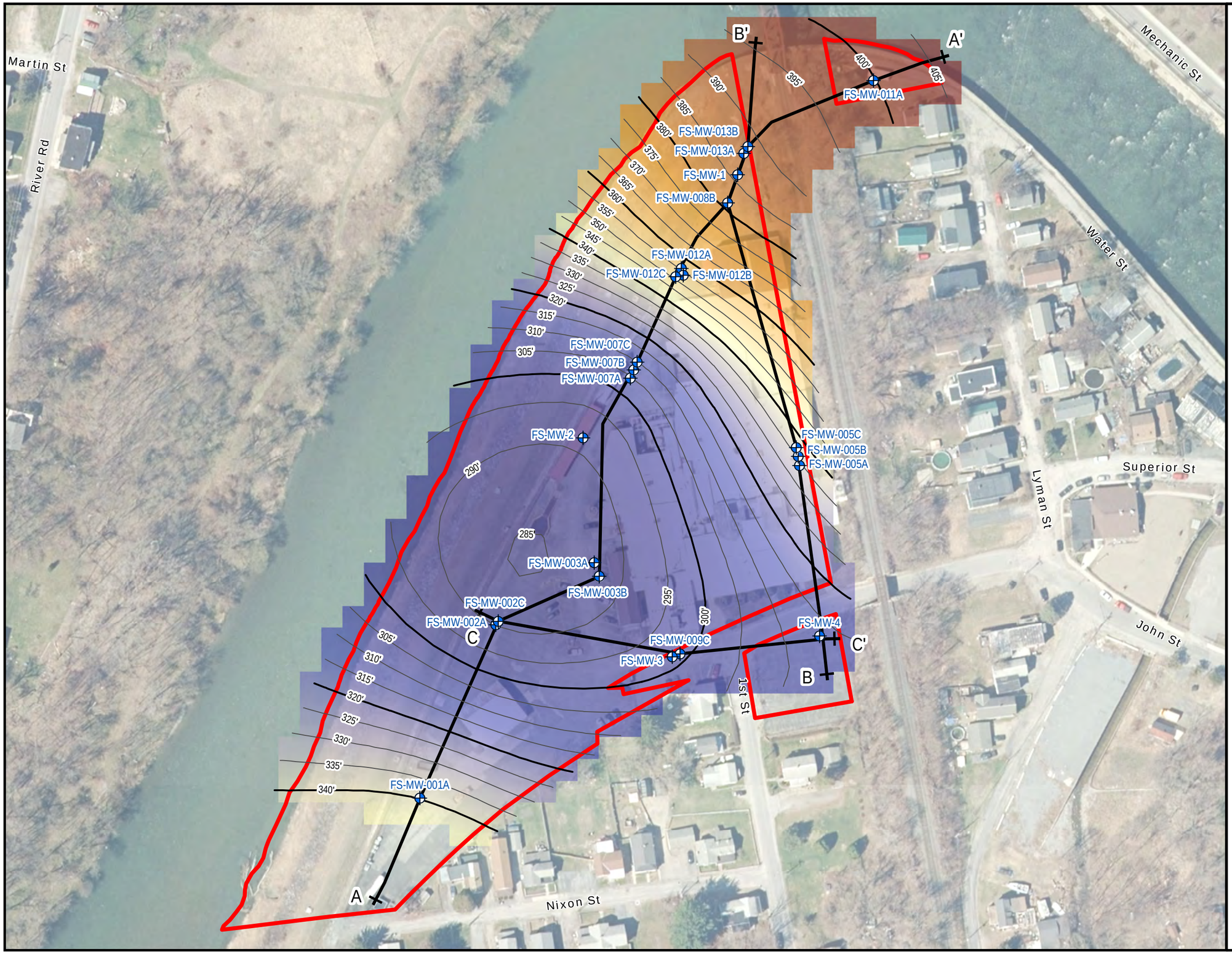
N

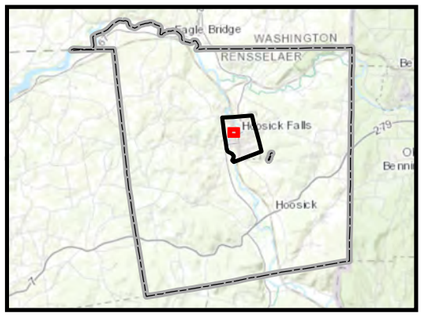
0 25 50 100 150 200
Feet

Figure 8: Clay Unit Isopach/Thickness
80 First St.
Village of Hoosick Falls
New York

ERM

Y:\DMM\Clients_A_E\Arnold and Porter\Hoosick Falls\MXD\SC Report\80_FS\Fig8_80_FS_Claylsopach_20200304.mxd - Olivia.Botting - 5/6/2020





Legend

- Monitoring Well Location
- Cross Section Profile Trace
- Bedrock Surface Elevation Contour - 20 ft.
- Bedrock Surface Elevation Contour - 5 ft.
- Approximate Property Boundaries

Interpolated Bedrock Surface Elevation (ft. ASL)

High : 406

Low : 284

NOTES:
- ft. = feet
- ASL = above mean sea level

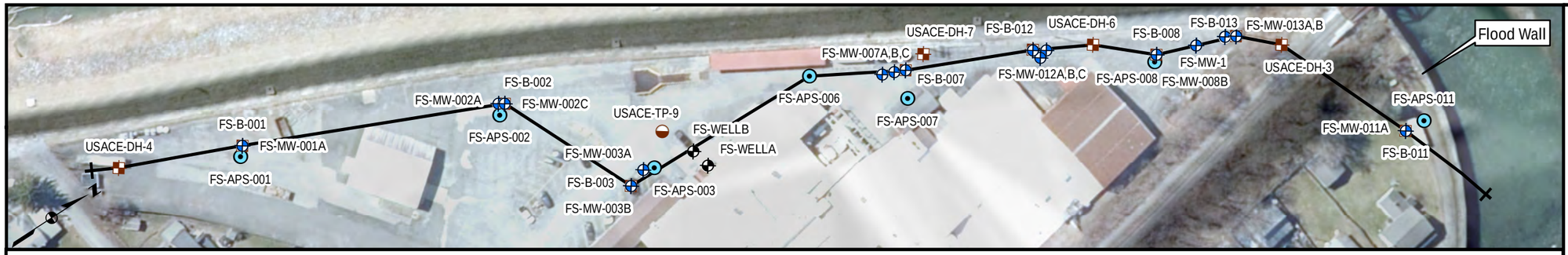
N

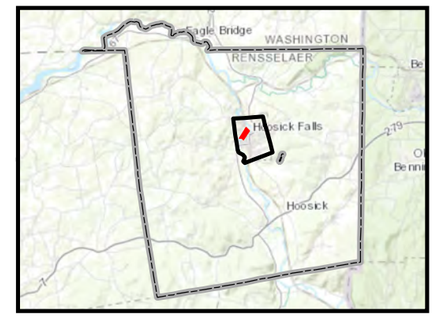
0 25 50 100 150 200
Feet

Figure 9: Bedrock Surface Elevation Map and Geologic Cross-Sections

80 First St.
Village of Hoosick Falls
New York

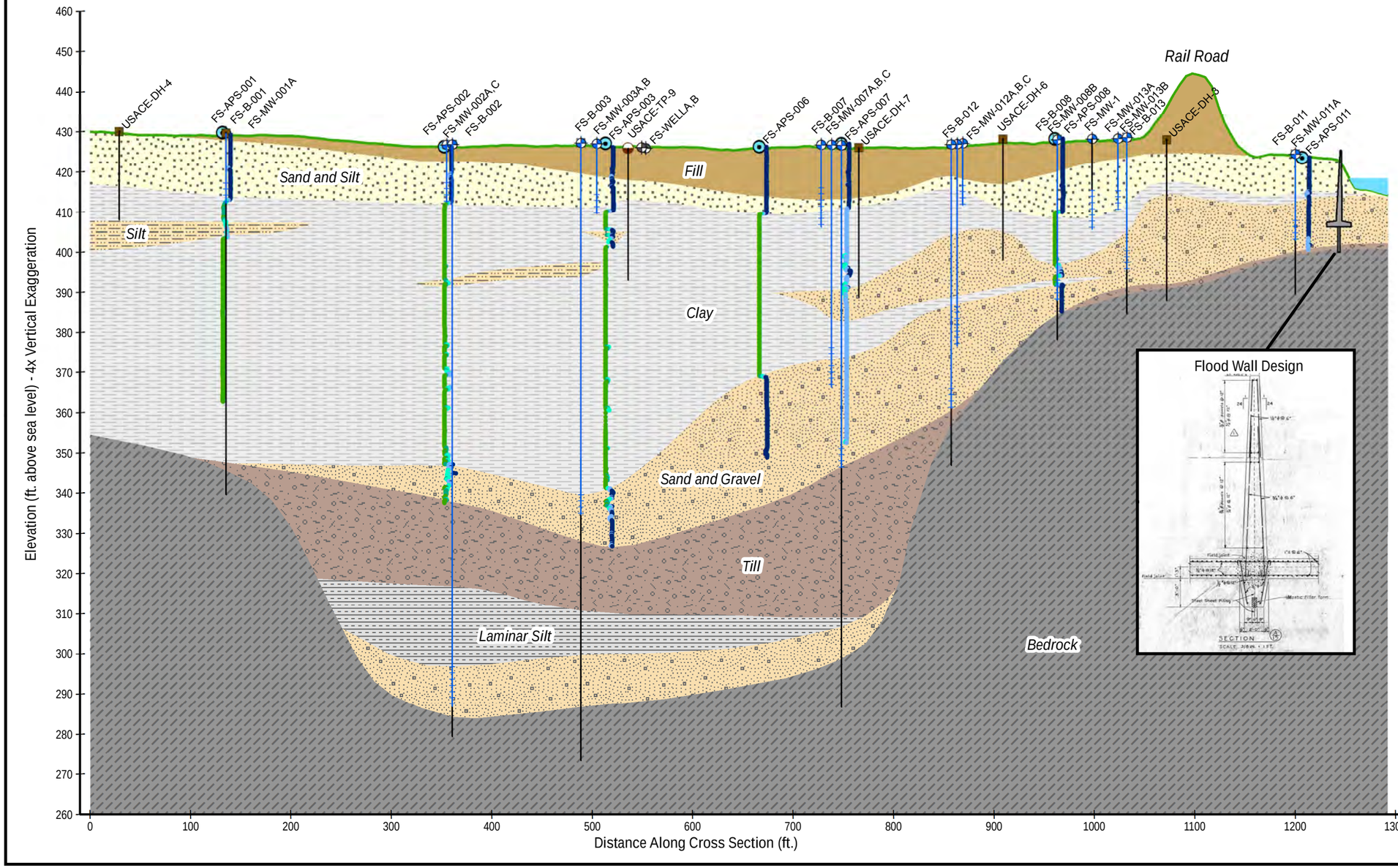
ERM





A

A'



Legend

- Waterloo APS™ Location
- Monitoring Well Location
- Historical Production Well Location
- Soil Boring Location
- Test Pit Location
- Surface Profile
- Well Trace
- Soil Boring Trace
- Monitoring Well Screen

Waterloo APS™ IK

- <0.50
- 0.50 - 1.0
- 1.0 - 2.0
- 2.0 - 3.0
- >3.0

Lithology

- fill
- al - sand and silt
- lc - clay
- og -silt
- t - till (diamict)
- lc - laminar silt and clay
- og - sand and gravel
- Ow - Waloomsac Fm.

NOTES:

- ft. = feet
- IK = inferred conductivity

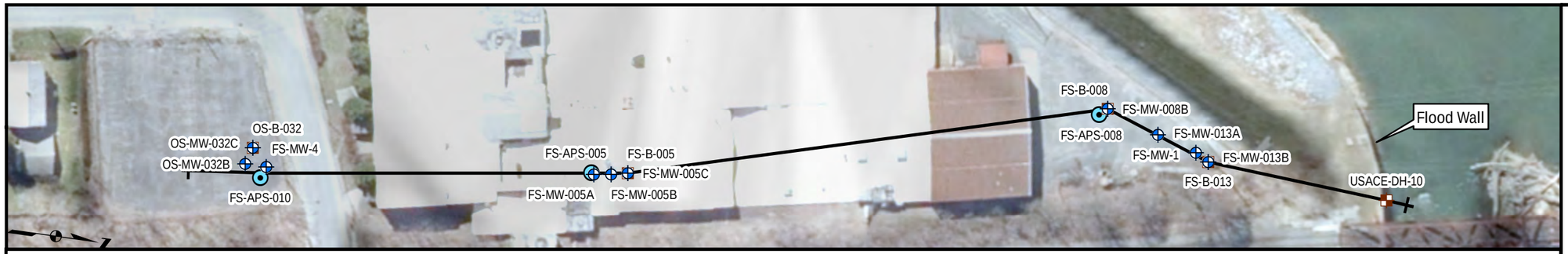
0 25 50 100 150 200

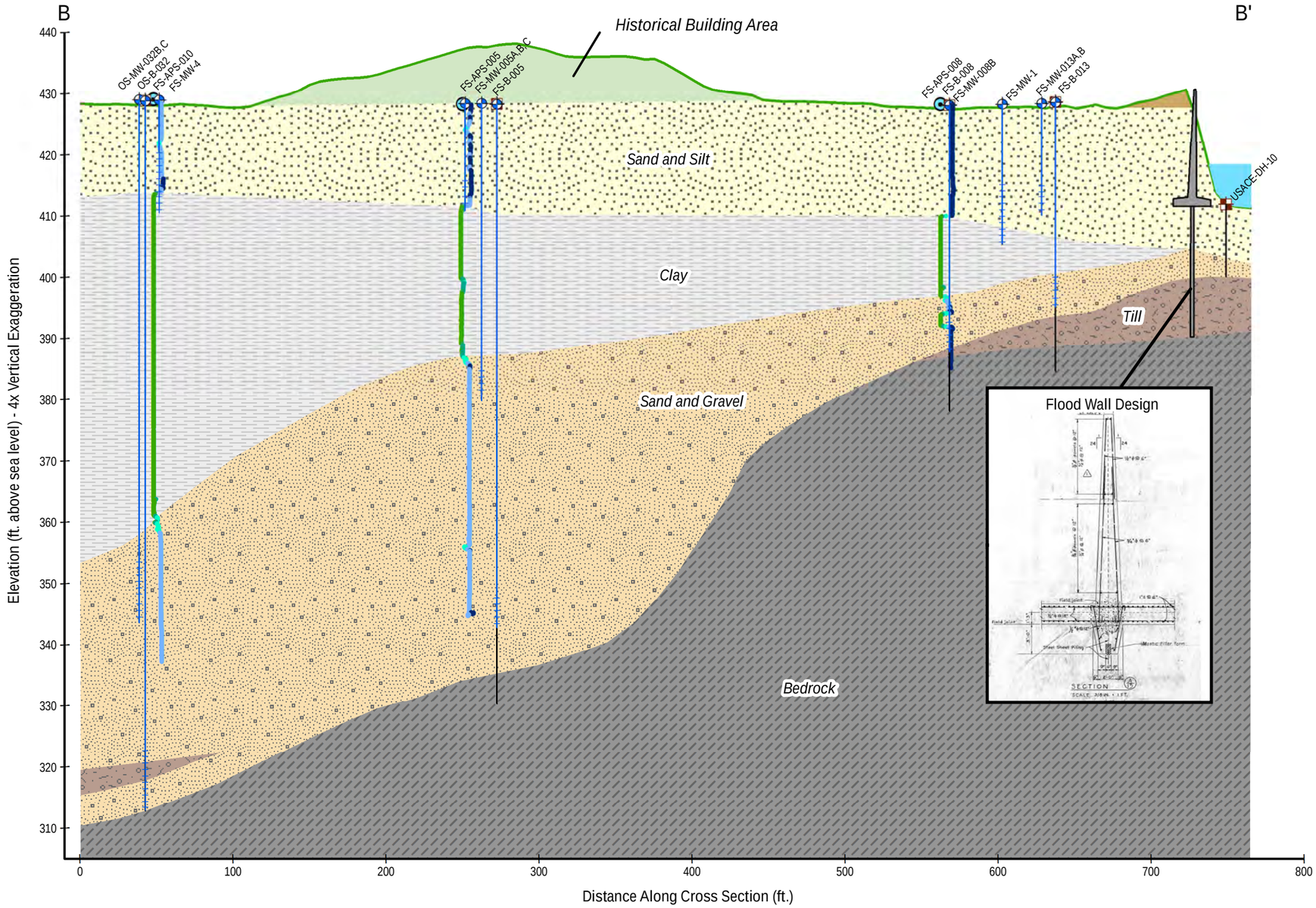
Feet

Vertical Exaggeration = 4x

Figure 10: Geologic Cross Section A-A'
80 First Street
Village of Hoosick Falls
New York

ERM





Legend

- Waterloo APS™ Location
- Monitoring Well Location
- Soil Boring Location
- Surface Profile
- Well Trace
- Soil Boring Trace
- Monitoring Well Screen

Waterloo APS™ IK

- <0.50
- 0.50 - 1.0
- 1.0 - 2.0
- 2.0 - 3.0
- >3.0

Lithology

- Historical Building Area
- fill
- al - sand and silt
- lc - clay
- t - till (diamict)
- og - sand and gravel
- Ow - Waloomsac Fm.

NOTES:
- ft. = feet
- IK = inferred conductivity

0 15 30 60 90 120
Feet

Vertical Exaggeration = 4x

Figure 11: Geologic Cross Section B-B'
80 First Street
Village of Hoosick Falls
New York

ERM

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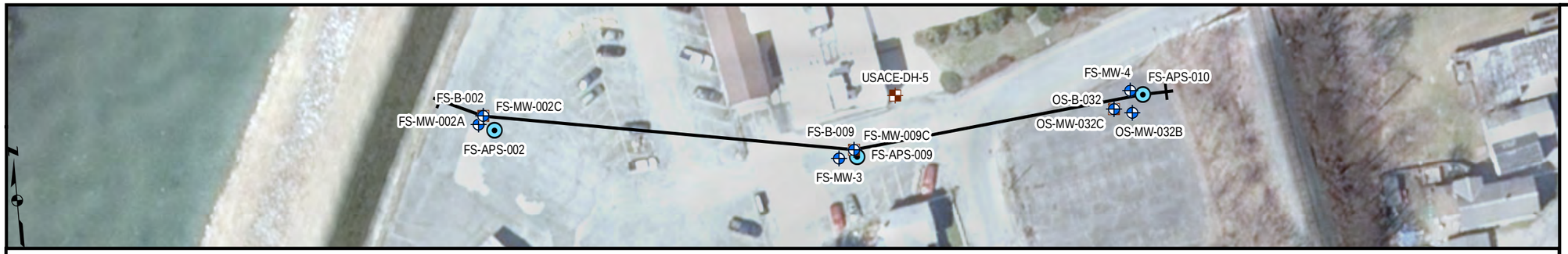
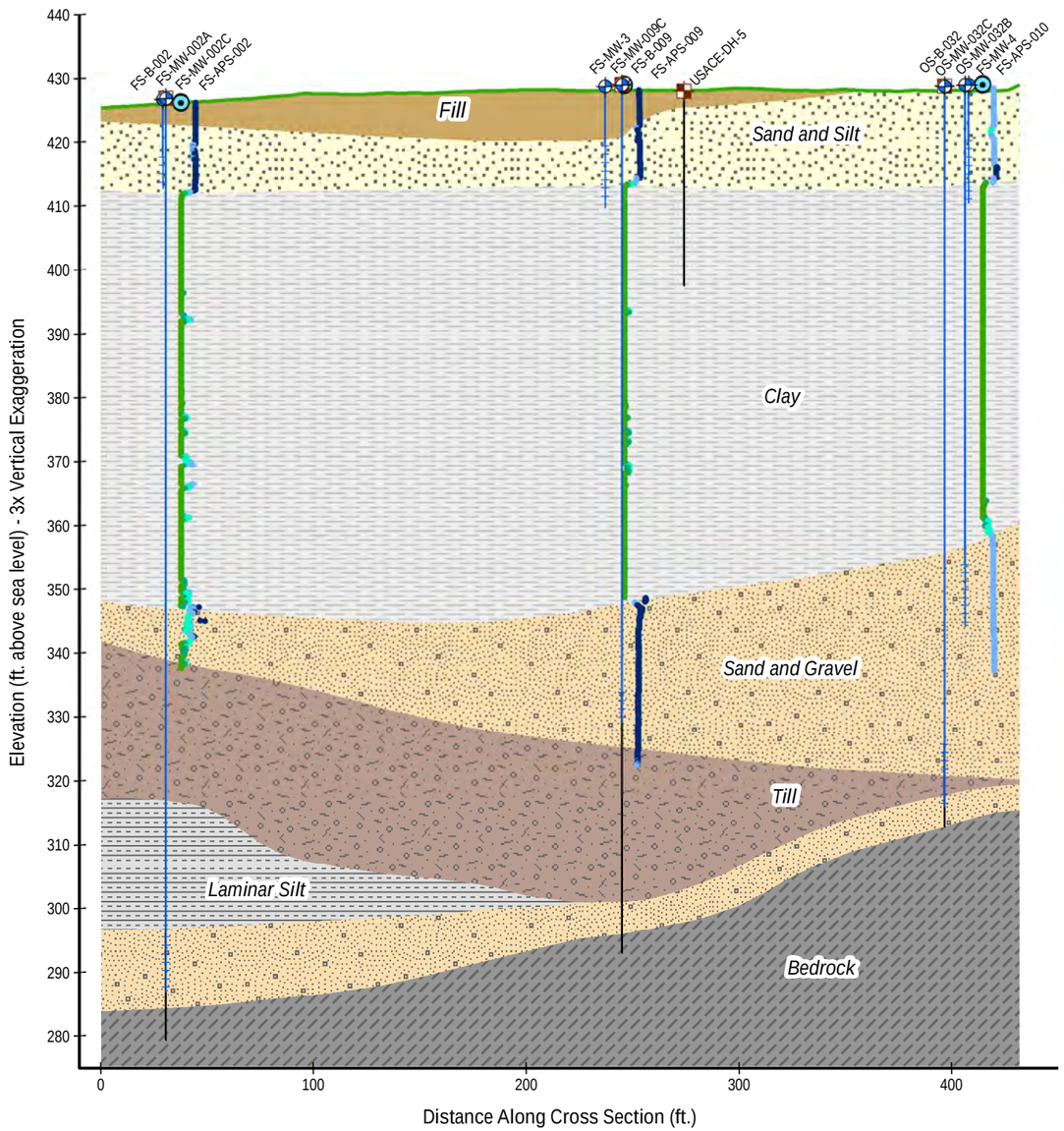


C C'



Legend

- Waterloo APS™ Location
- Monitoring Well Location
- Soil Boring Location
- Surface Profile
- Well Trace
- Soil Boring Trace
- Monitoring Well Screen

Waterloo APS™ IK

- <0.50
- 0.50 - 1.0
- 1.0 - 2.0
- 2.0 - 3.0
- >3.0

Lithology

- fill
- al - sand and silt
- lc - clay
- t - till (diamict)
- lc - laminar silt and clay
- og - sand and gravel
- Ow - Waloomsac Fm.

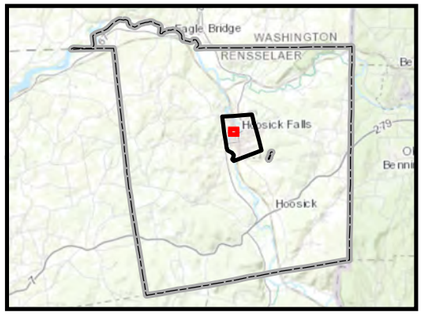
NOTES:
- ft. = feet
- IK = inferred conductivity

0 15 30 60 90 120
Feet

Vertical Exaggeration = 3x

Figure 12: Geologic Cross Section C-C'
80 First Street
Village of Hoosick Falls
New York

ERM



Legend

- Gauged Water Table Monitoring Wells - January 2020
- Water Table Groundwater Contour - 5
- Water Table Groundwater Contour - 1
- Approximate Property

NOTES:
- Monitoring wells gauged on 1/7/2020.
- ft. = feet
- ASL = above mean sea level

N

0 25 50 100 150 200
Feet

Figure 13: Shallow Groundwater Elevation Contours
80 First St.
Village of Hoosick Falls
New York

ERM

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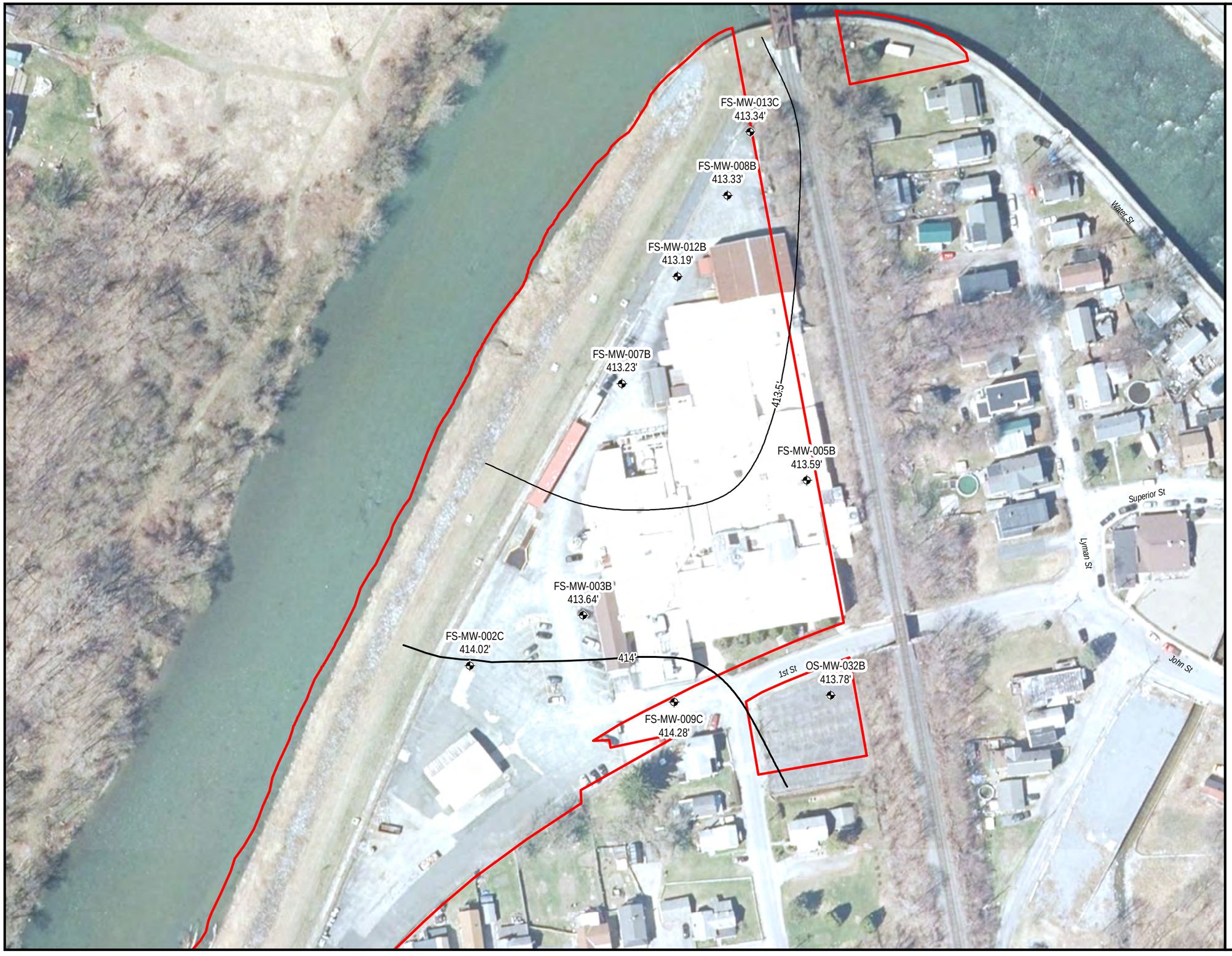

Legend

- Gauged Deep Confined Monitoring Wells - January 2020
- Groundwater Contour - 2 ft.
- Groundwater Contour - 0.5 ft.
- Approximate Site Boundaries

NOTES:

- Monitoring wells gauged on 1/7/2020.
- ft. = feet
- ASL = above mean sea level

N

0 25 50 100 150 200

Feet

Figure 14: Deep Groundwater Potentiometric Contours
80 First St.
Village of Hoosick Falls
New York

ERM

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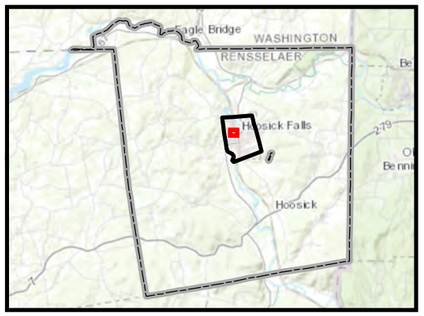


Legend

VOC Concentrations in Overburden Groundwater

Total VOCs (µg/l)

- Non-detect
- RL - 10
- 10 - 100
- 100 - 1,000
- 1,000 - 1,896
- Well Not Sampled for VOCs
- Approximate Property Boundaries

NOTES:

- VOC = Volatile Organic Compounds
- µg/l = micrograms per liter
- RL = reporting limit
- ND = non-detect
- Analytical samples collected in July 2019

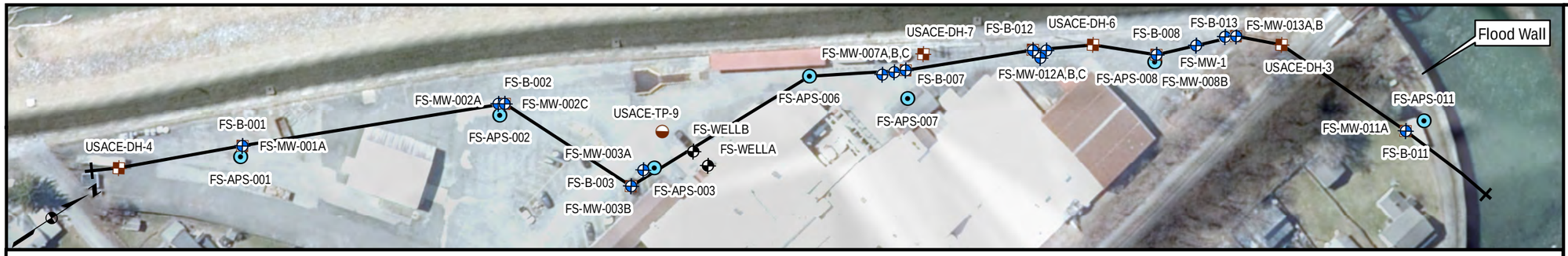
N

0 25 50 100 150 200

Feet

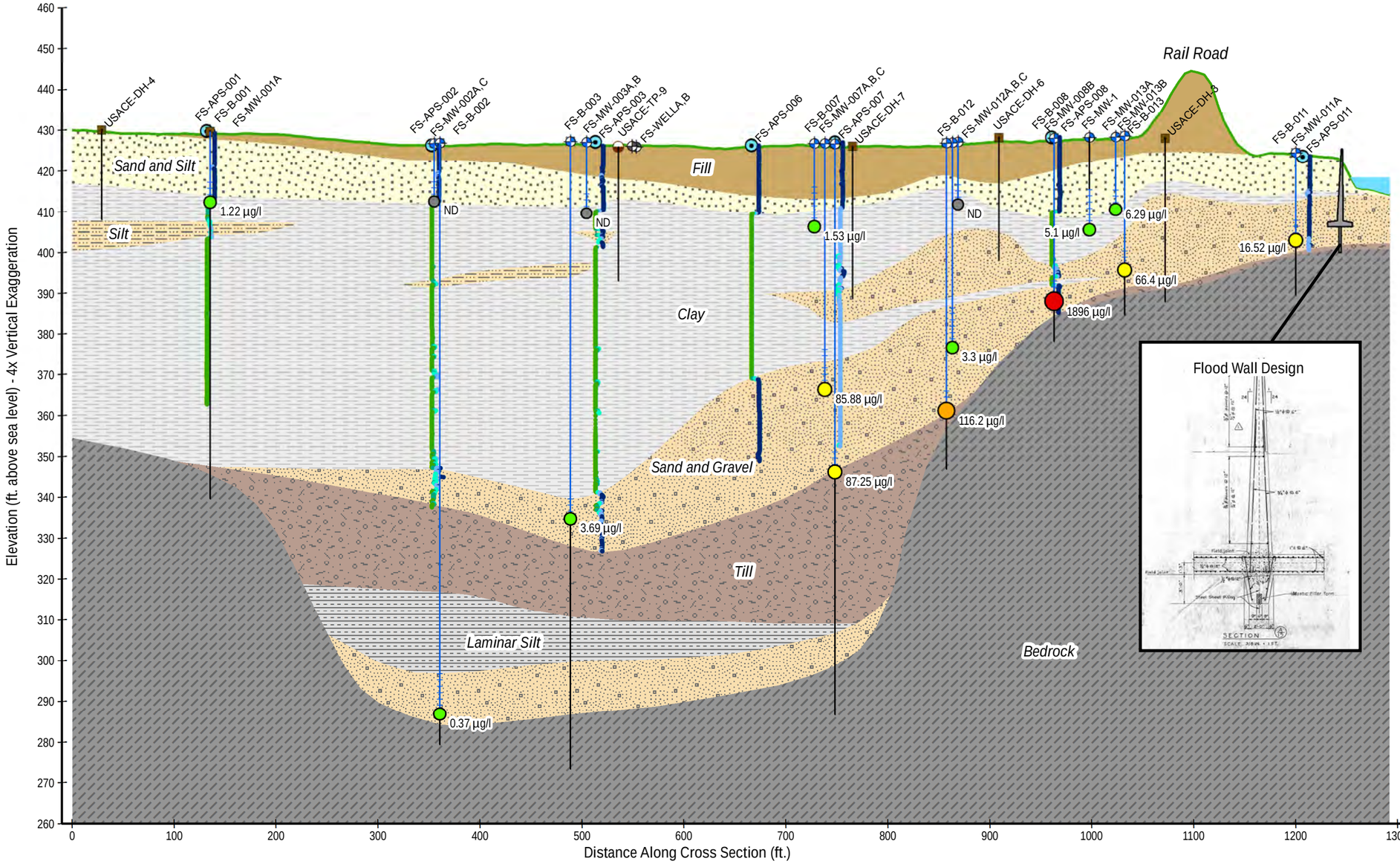
Figure 15: VOC Results in Groundwater
80 First St.
Village of Hoosick Falls
New York

ERM



A

A'



Legend

- Waterloo APS™ Location
- Monitoring Well Location
- Historical Production Well Location
- Soil Boring Location
- Test Pit Location
- Surface Profile
- Well Trace
- Soil Boring Trace
- Monitoring Well Screen

Lithology

- fill
- al - sand and silt
- lc - clay
- og -silt
- t - till (diamict)
- lc - laminar silt and clay
- og - sand and gravel
- Ow - Waloomsac Fm.

tVOC (µg/l)

- Non-detect
- RL - 10
- 10 - 100
- 100 - 1,000
- 1,000 - 1,896

Waterloo APS™ IK

- <0.50
- 0.50 - 1.0
- 1.0 - 2.0
- 2.0 - 3.0
- >3.0

NOTES:

- tVOC = total Volatile Organic Compounds
- µg/l = micrograms per liter
- RL = reporting limit
- ND = non-detect
- ft. = feet
- IK = inferred conductivity
- Analytical samples collected in July 2019

0 25 50 100 150 200

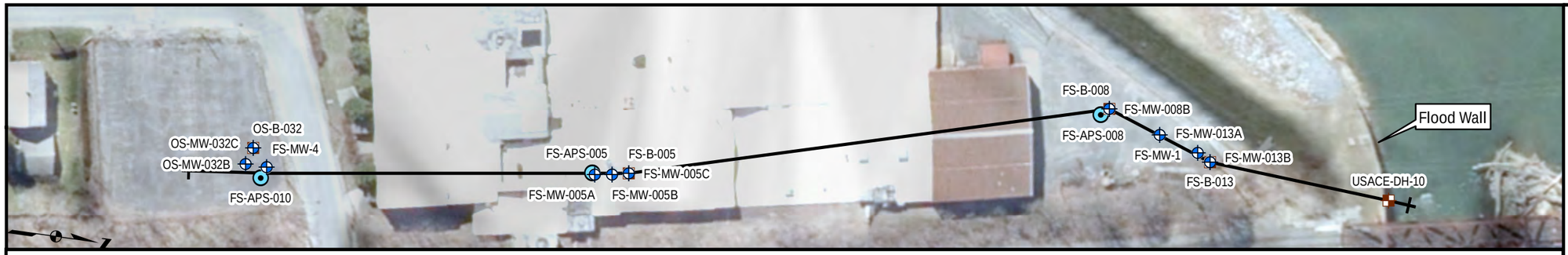
Feet

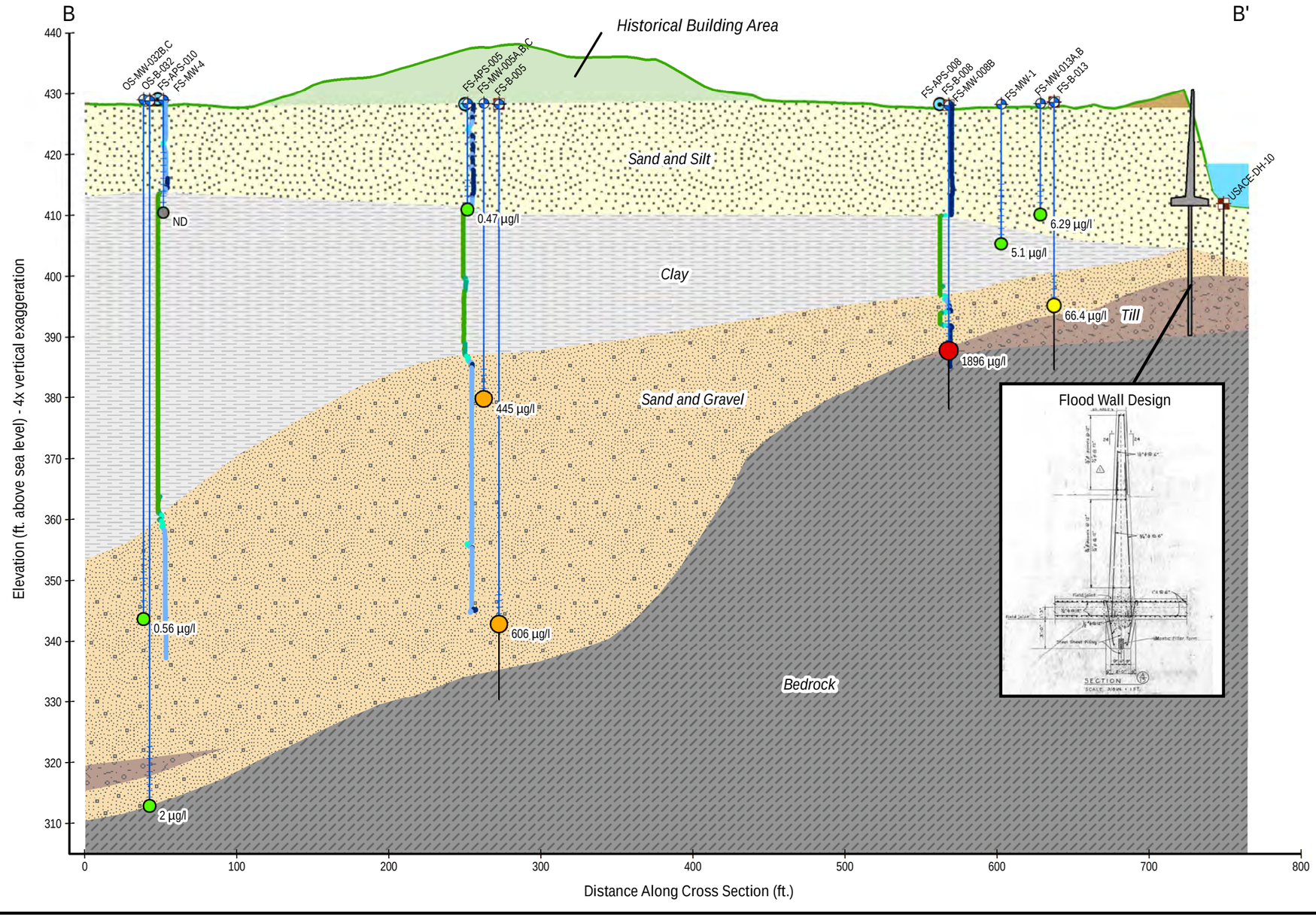
Vertical Exaggeration = 4x

Figure 16: VOC Results in Groundwater - Geologic Cross Section A-A'

80 First Street
Village of Hoosick Falls
New York

ERM





Legend

- Waterloo APS™ Location
- Monitoring Well Location
- Soil Boring Location
- Surface Profile
- Well Trace
- Soil Boring Trace
- Monitoring Well Screen

Lithology

- Historical Building Area
- fill
- al - sand and silt
- lc - clay
- t - till (diamict)
- og - sand and gravel
- Ow - Waloomsac Fm.

tVOC (µg/l)

- Non-detect
- RL - 10
- 10 - 100
- 100 - 1,000
- 1,000 - 1,896

Waterloo APS™ IK

- <0.50
- 0.50 - 1.0
- 1.0 - 2.0
- 2.0 - 3.0
- >3.0

NOTES:

- tVOC = total Volatile Organic Compounds
- µg/l = micrograms per liter
- RL = reporting limit
- ND = non-detect
- ft. = feet
- IK = inferred conductivity
- Analytical samples collected in July 2019

0 15 30 60 90 120

Feet

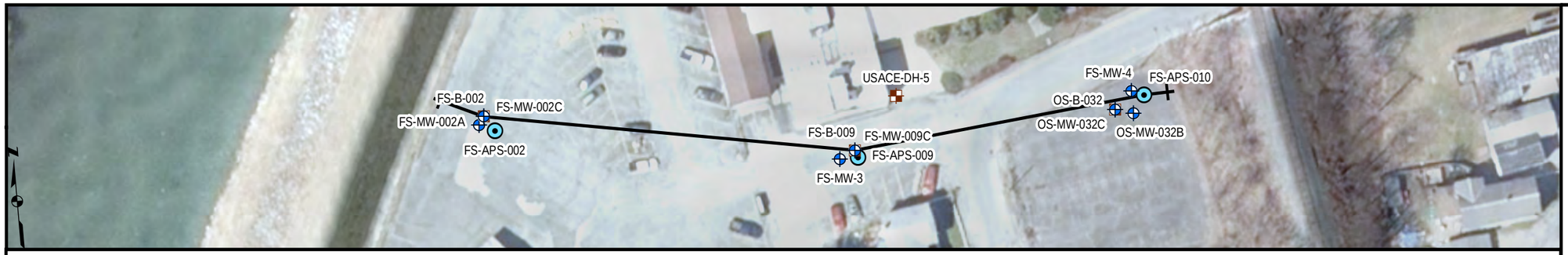
Vertical Exaggeration = 4x

Figure 17: VOC Results in Groundwater - Geologic Cross Section B-B'

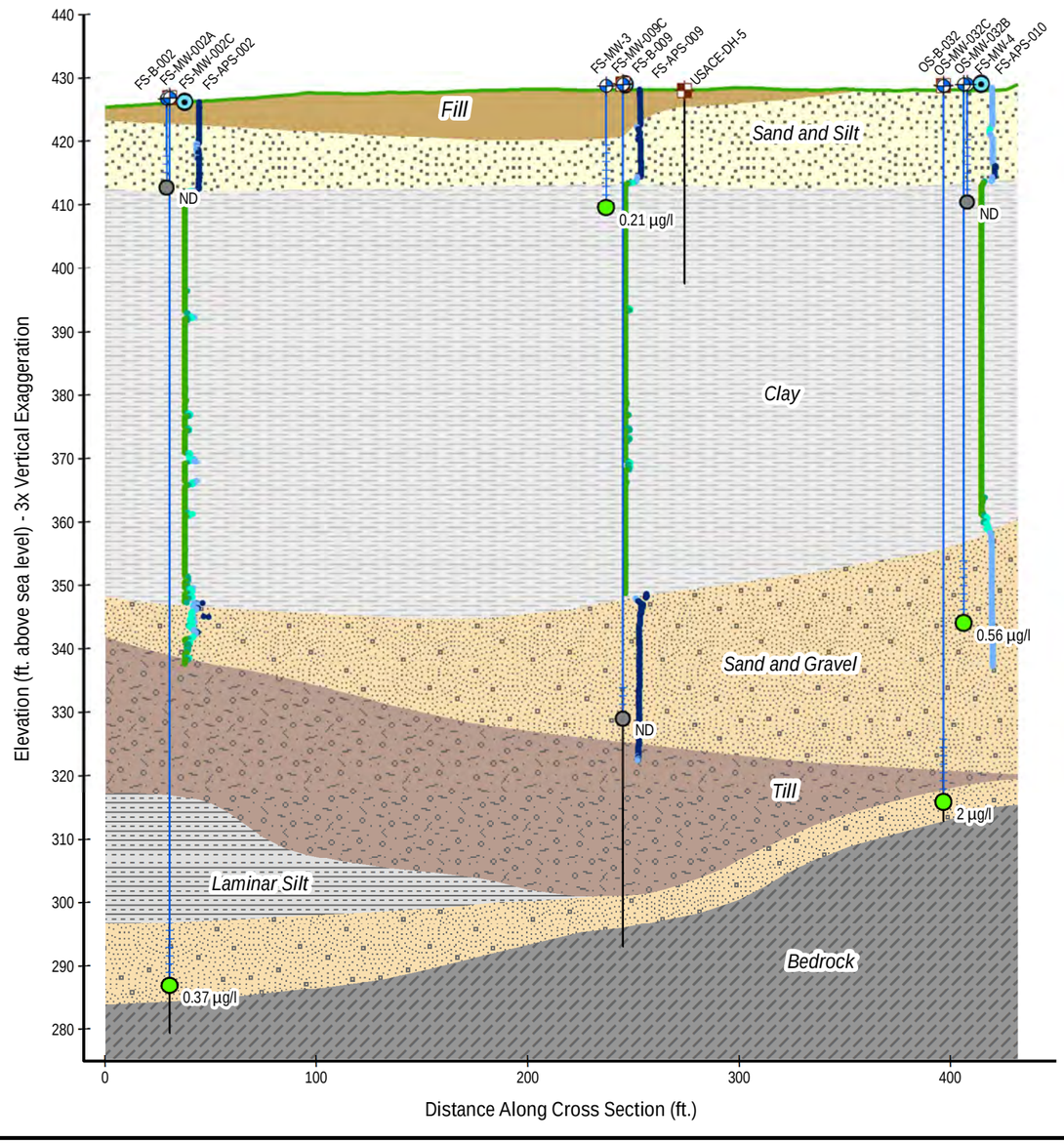
80 First Street
Village of Hoosick Falls
New York

ERM

Y:\DMV\Clients_A_E\Arnold and Porter\HoosickFalls\MXD\CrossSections\2020-01_FS_GCreportB-B'_FS_GeologicalSection_VOC_DataPostings_20200304.mxd - Olivia.Botting - 5/6/2020



C C'



Legend

- Waterloo APS™ Location
- Monitoring Well Location
- Soil Boring Location
- Surface Profile
- Well Trace
- Soil Boring Trace
- Monitoring Well Screen

Lithology

- fill
- al - sand and silt
- lc - clay
- t - till (diamict)
- lc - laminar silt and clay
- og - sand and gravel
- Ow - Waloomsac Fm.

tVOC (µg/l)

- Non-detect
- RL - 10
- 10 - 100
- 100 - 1,000
- 1,000 - 1,896

Waterloo APS™ IK

- <0.50
- 0.50 - 1.0
- 1.0 - 2.0
- 2.0 - 3.0
- >3.0

NOTES:
- tVOC = total Volatile Organic Compounds
- µg/l = micrograms per liter
- RL = reporting limit
- ND = non-detect
- ft. = feet
- IK = inferred conductivity
- Analytical samples collected in July 2019

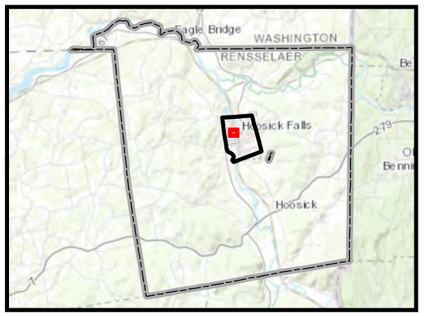
0 15 30 60 90 120
Feet

Vertical Exaggeration = 3x

Figure 18: VOC Results in Groundwater - Geologic Cross Section C-C'
80 First Street
Village of Hoosick Falls
New York

ERM

Y:\DM\MV\Clients_A_E\Arnold and Porter\Hoosick Falls\MXD\CrossSections\2020-01_FS_SCReport\C-C'_FS_GeologicalSection_VOC_DataPostings_20200304.mxd - Olivia.Bolting - 5/6/2020



Legend

SVOC Exceedances in Groundwater

- No Exceedance
- NYS Groundwater Class GA Standard Exceedance
- Well Not Sampled for
- Approximate Property

NOTES:
- SVOC = Semi-Volatile Organic Compounds
- Analytical samples collected in July 2019

N

0 25 50 100 150 200
Feet

Figure 19: SVOC Results in Groundwater
80 First St.
Village of Hoosick Falls
New York

ERM

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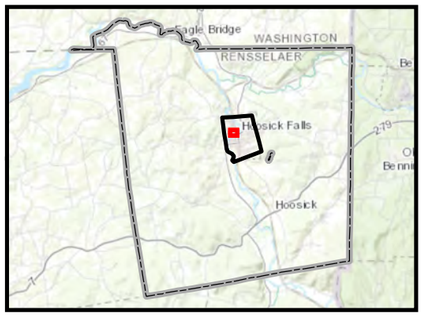


Legend

Copper Exceedances in Groundwater (mg/l)

- No Exceedance
- Copper Results that Exceed NYS Groundwater Class GA Standard of 0.2 mg/l for Copper
- 0.038 Copper Results that Exceed NYS Groundwater Class GA Standard of 0.2 mg/l for Copper
- Dry Well
- Approximate Property Boundaries

NOTES:

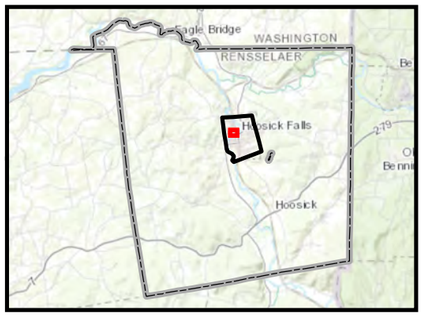
- mg/l = milligrams per liter
- J = estimated value
- ND = non-detect copper result
- Analytical samples collected in July 2019

0 25 50 100 150 200
Feet

Figure 20: Copper Results in Groundwater
80 First St.
Village of Hoosick Falls
New York

ERM

Y:\DMMV\Clients_A_E\Arnold&Porter\Hoosick Falls\MXD\SC Report\01_FSFig20_00_FS_Metals_Results_20200106.mxd - Olivia.Botting - 5/6/2020



Legend

PFOA Results in Groundwater (ng/l)

- RL - 10
- 10 - 100
- 100 - 1,000
- > 1,000
- Non-detect
- Approximate Property Boundaries

NOTES:

- PFOA = Perfluorooctanoic Acid
- ng/l = nanograms per liter
- RL = reporting limit
- ND = non-detect
- RL for FS-MW-002C is less than 0.82 ng/l
- Analytical samples collected in July 2019

N

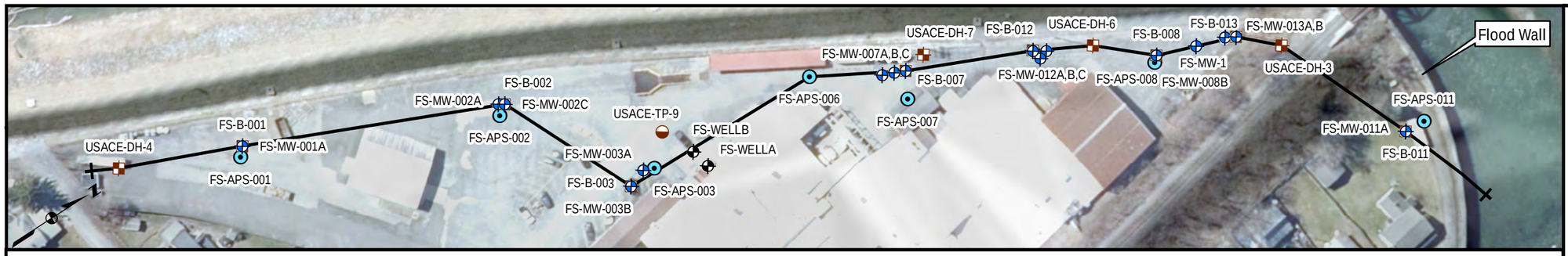
0 25 50 100 150 200

Feet

Figure 21: PFOA Results in Shallow Groundwater
80 First St.
Village of Hoosick Falls
New York

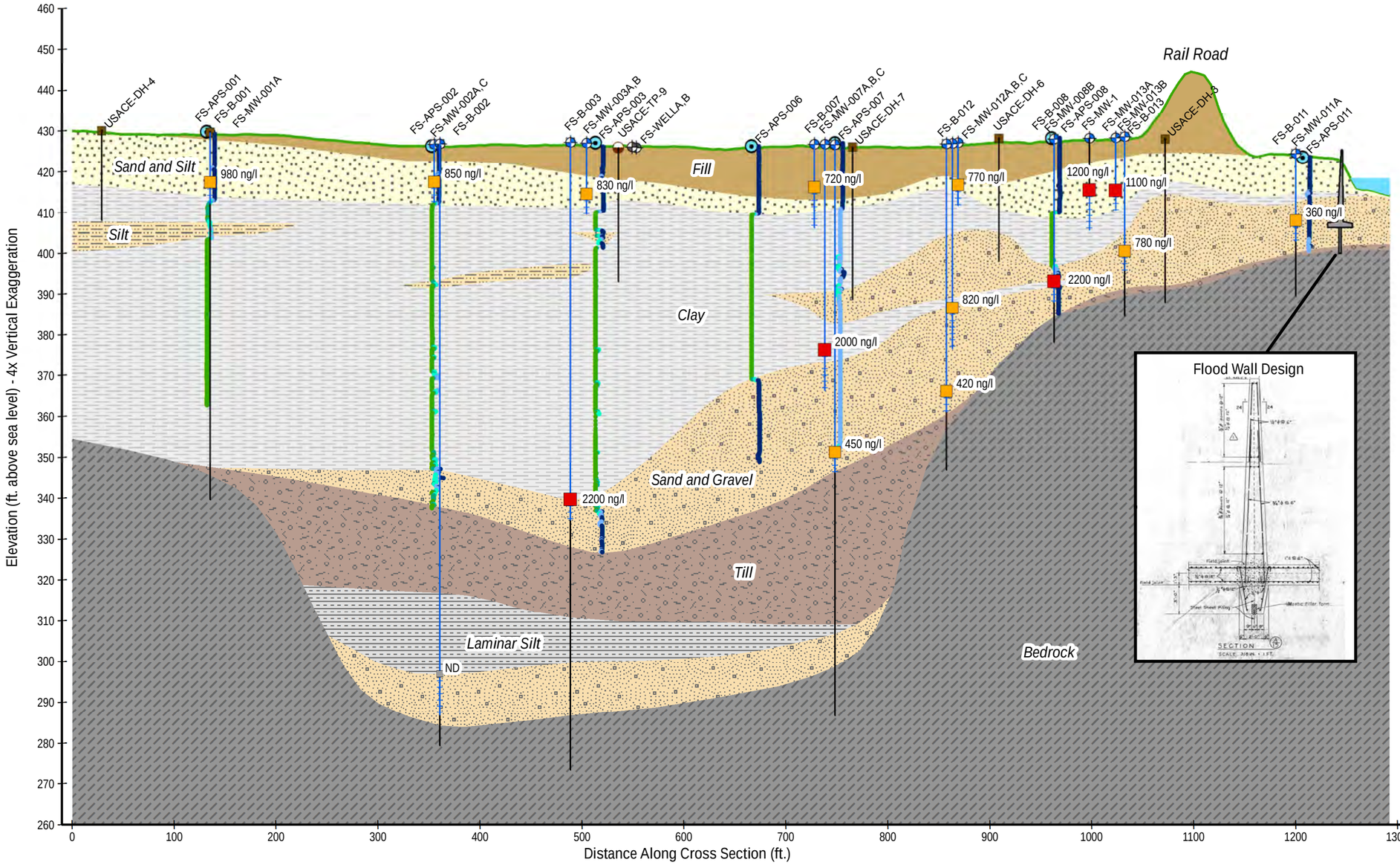
ERM

Y:\DMMV\Clients_A_E\Arnold and Porter\Hoosick Falls\MXD\SC Report\80_FS\Fig21_80_FS_PFOA_GW_20200427.mxd - Olivia.Bidding - 5/6/2020



A

A'



Legend

- Waterloo APS™ Location
- Monitoring Well Location
- Historical Production Well Location
- Soil Boring Location
- Test Pit Location
- Surface Profile
- Well Trace
- Soil Boring Trace
- Monitoring Well Screen

PFOA (ng/l)
- Non-detect
- RL - 10
- 10 - 100
- 100 - 1,000
- 1,000 - 2,476

Waterloo APS™ IK
- <0.50
- 0.50 - 1.0
- 1.0 - 2.0
- 2.0 - 3.0
- >3.0

Lithology
- fill
- al - sand and silt
- lc - clay
- og -silt
- t - till (diamict)
- lc - laminar silt and clay
- og - sand and gravel
- Ow - Waloomsac Fm.

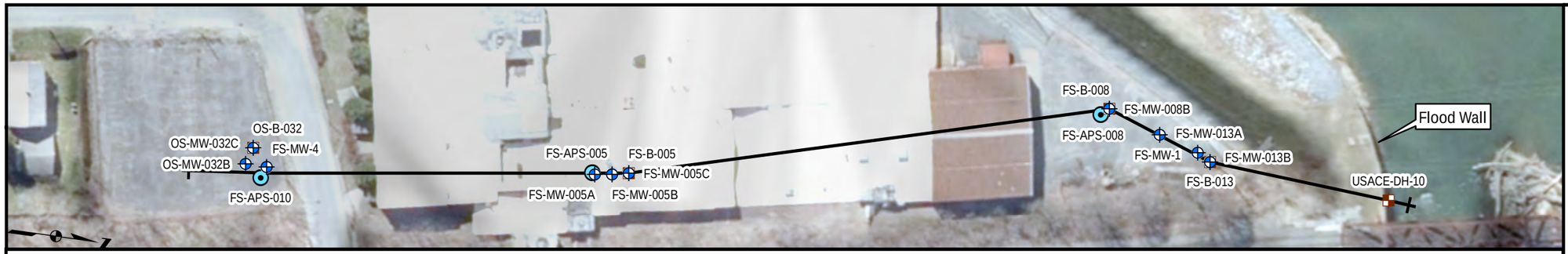
NOTES:
- PFOA = Perfluorooctanoic Acid
- ng/l = nanograms per liter
- RL = reporting limit
- ND = non-detect
- ft. = feet
- IK = inferred conductivity
- Analytical samples collected in July 2019

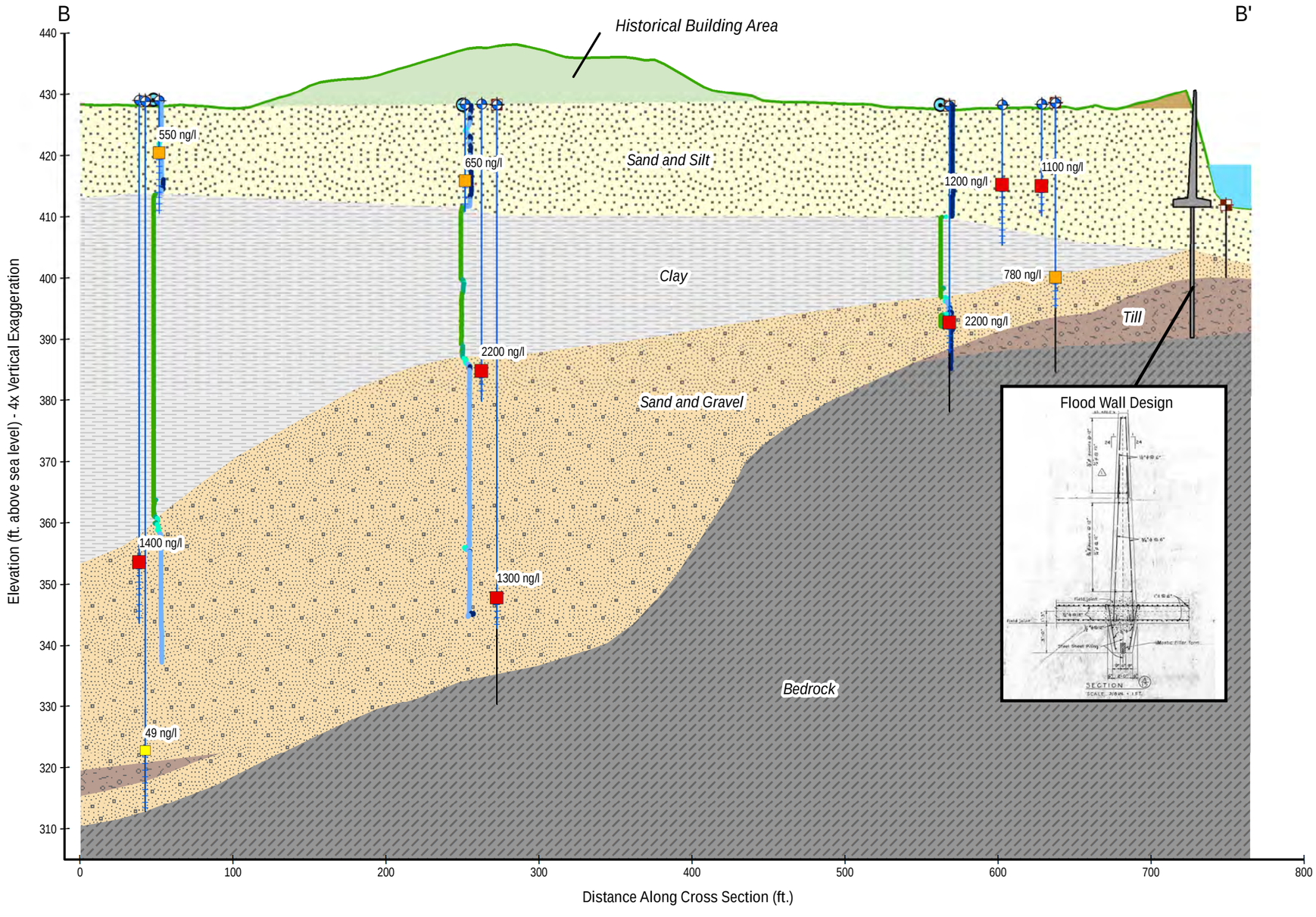
0 25 50 100 150 200
Feet

Vertical Exaggeration = 4x

Figure 22: PFOA in Groundwater
Geologic Cross Section A-A'
80 First Street
Village of Hoosick Falls
New York

ERM





Legend

- Waterloo APS™ Location
- Monitoring Well Location
- Soil Boring Location
- Surface Profile
- Well Trace
- Soil Boring Trace
- Monitoring Well Screen

Lithology

- Historical Building Area
- fill
- al - sand and silt
- lc - clay
- t - till (diamict)
- og - sand and gravel
- Ow - Waloomsac Fm.

PFOA (ng/l)

- Non-detect
- RL - 10
- 10 - 100
- 100 - 1,000
- 1,000 - 2,476

Waterloo APS™ IK

- <0.50
- 0.50 - 1.0
- 1.0 - 2.0
- 2.0 - 3.0
- >3.0

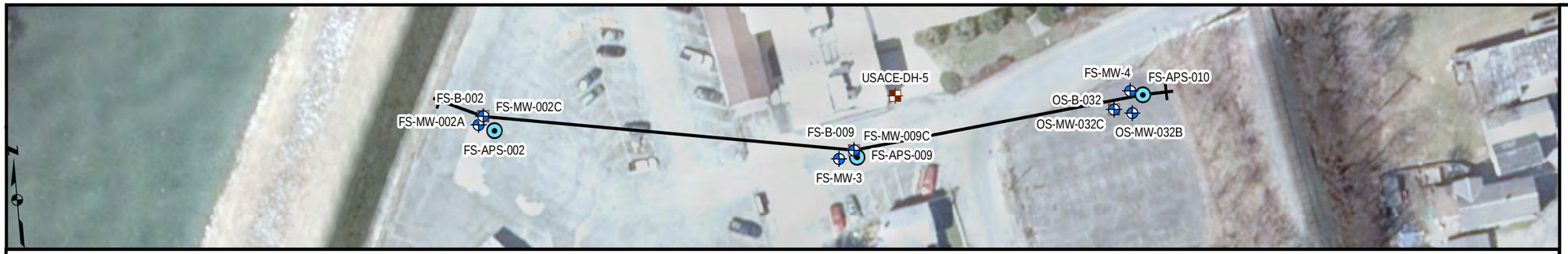
NOTES:
- PFOA = Perfluorooctanoic Acid
- ng/l = nanograms per liter
- RL = reporting limit
- ft. = feet
- IK = inferred conductivity
- Analytical samples collected in July 2019

0 15 30 60 90 120
Feet

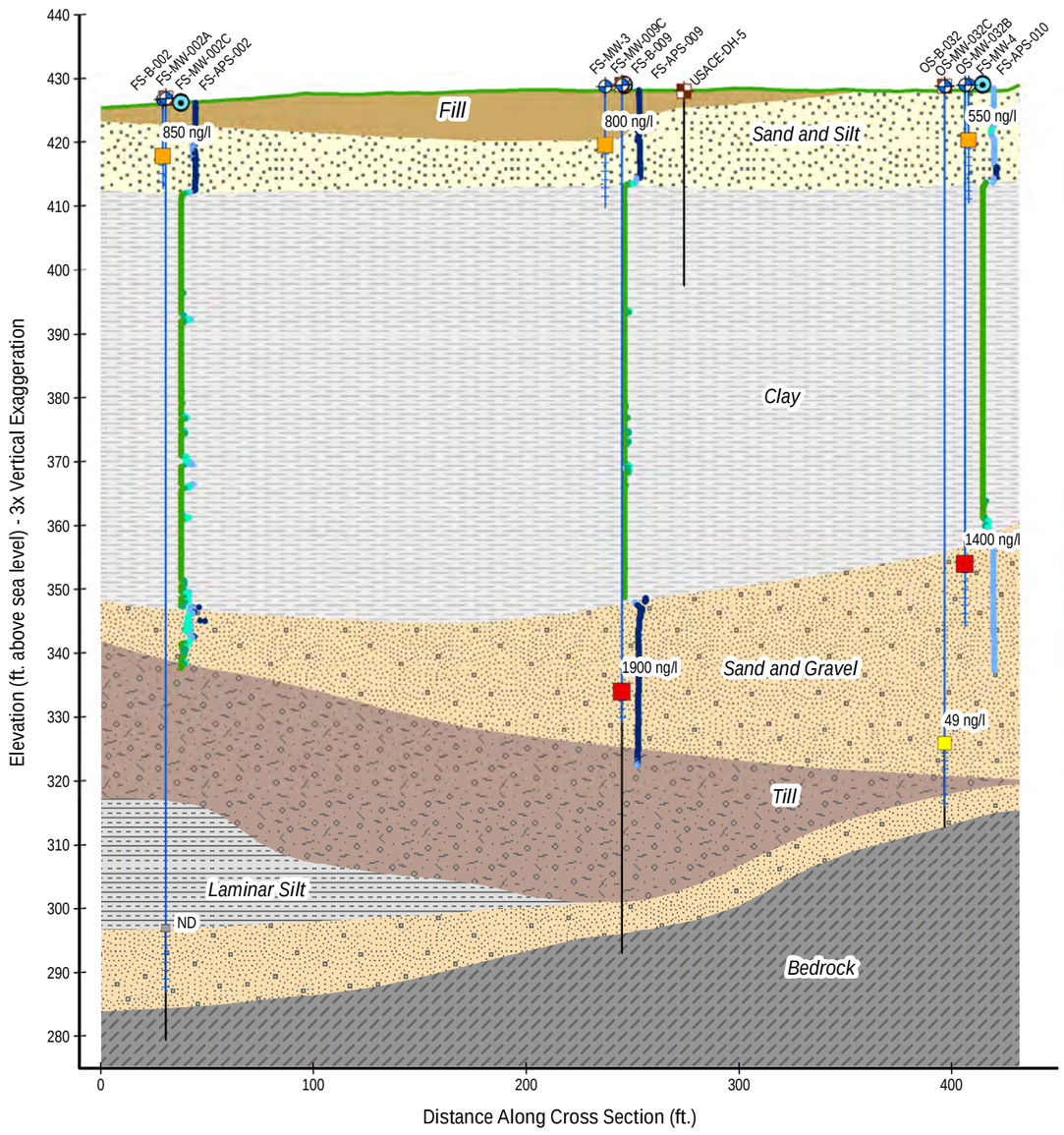
Vertical Exaggeration = 4x

Figure 23: PFOA Results in Groundwater - Geologic Cross Section B-B'
80 First Street
Village of Hoosick Falls
New York

ERM



C C'



Legend

- Waterloo APS™ Location
- Monitoring Well Location
- Soil Boring Location
- Surface Profile
- Well Trace
- Soil Boring Trace
- Monitoring Well Screen

Lithology

- fill
- al - sand and silt
- lc - clay
- t - till (diamict)
- lc - laminar silt and clay
- og - sand and gravel
- Ow - Waloomsac Fm.

PFOA (ng/l)

- Non-detect
- RL - 10
- 10 - 100
- 100 - 1,000
- 1,000 - 2,476

Waterloo APS™ IK

- <0.50
- 0.50 - 1.0
- 1.0 - 2.0
- 2.0 - 3.0
- >3.0

NOTES:
- PFOA = Perfluorooctanoic Acid
- ng/l = nanograms per liter
- RL = reporting limit
- ND = non-detect
- ft. = feet
- IK = inferred conductivity
- Analytical samples collected in July 2019

0 15 30 60 90 120
Feet

Vertical Exaggertation = 3x

Figure 24: PFOA Results in Groundwater - Geologic Cross Section C-C'
80 First Street
Village of Hoosick Falls
New York

ERM

Figure 25a - Results of Infrared Drone Survey

Legend

- Infrared Photo Locations with Direction
- Hoosick Town Boundary
- Area of Potential Groundwater Discharge – to be Considered for Further Evaluation

DRAFT

0 25 50 100 150 200
Feet

Infrared Drone Flight
Select Photos
Town of Hoosick
New York

ERM

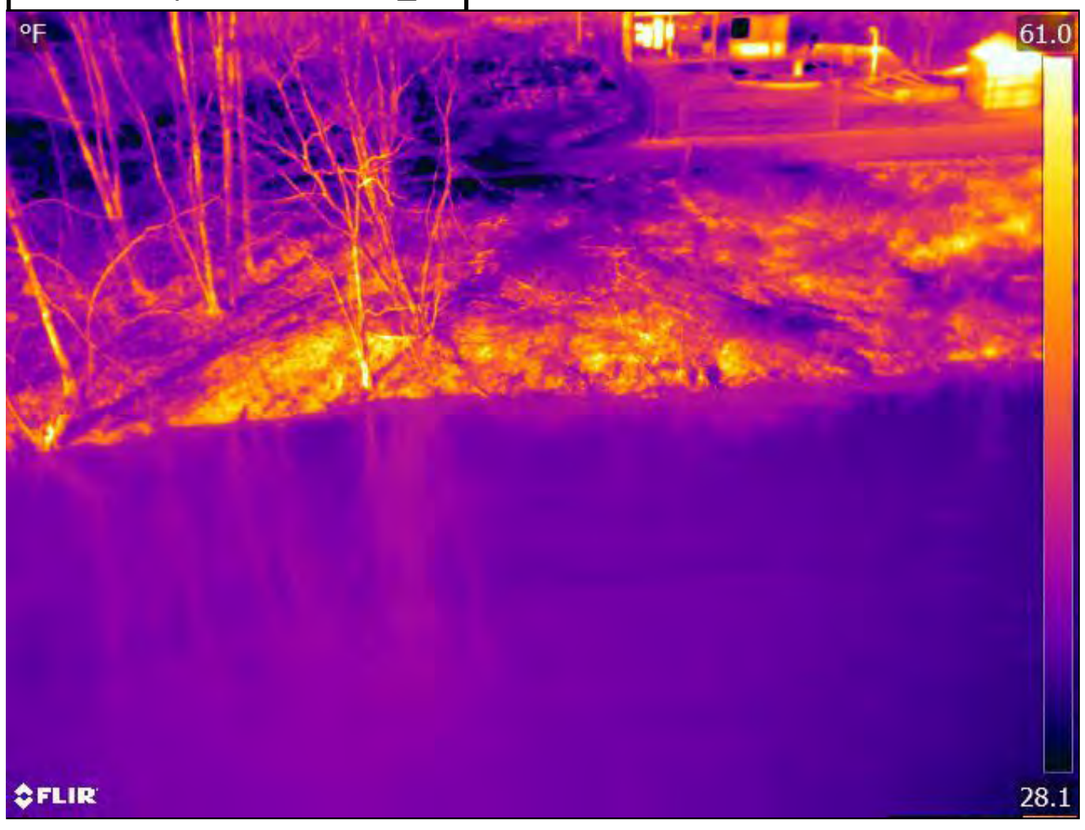
Figure 25b - Results of Infrared Drone Survey – Example of No Shoreline Temperature Contrast

Legend

Area of Detail

Cooler — Warmer

Infrared Spectrum – 145_IR



Orthoimage

*Infrared temperature scale should be used for comparative purposes only and not as an absolute temperature

ERM

Figure 25c - Results of Infrared Drone Survey – Southeast Floodwall

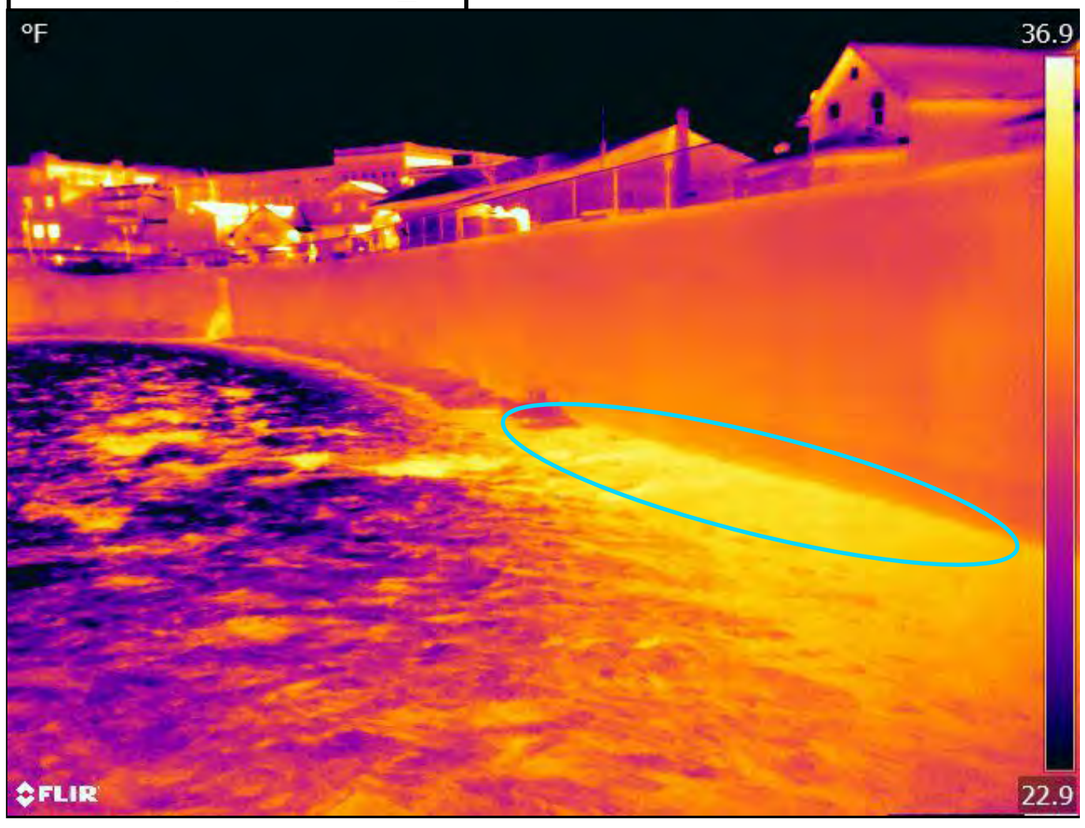
Legend

Area of Detail

Area of Interest

Cooler — Warmer

Infrared Spectrum – 198_IR



Orthoimage

*Infrared temperature scale should be used for comparative purposes only and not as an absolute temperature

ERM

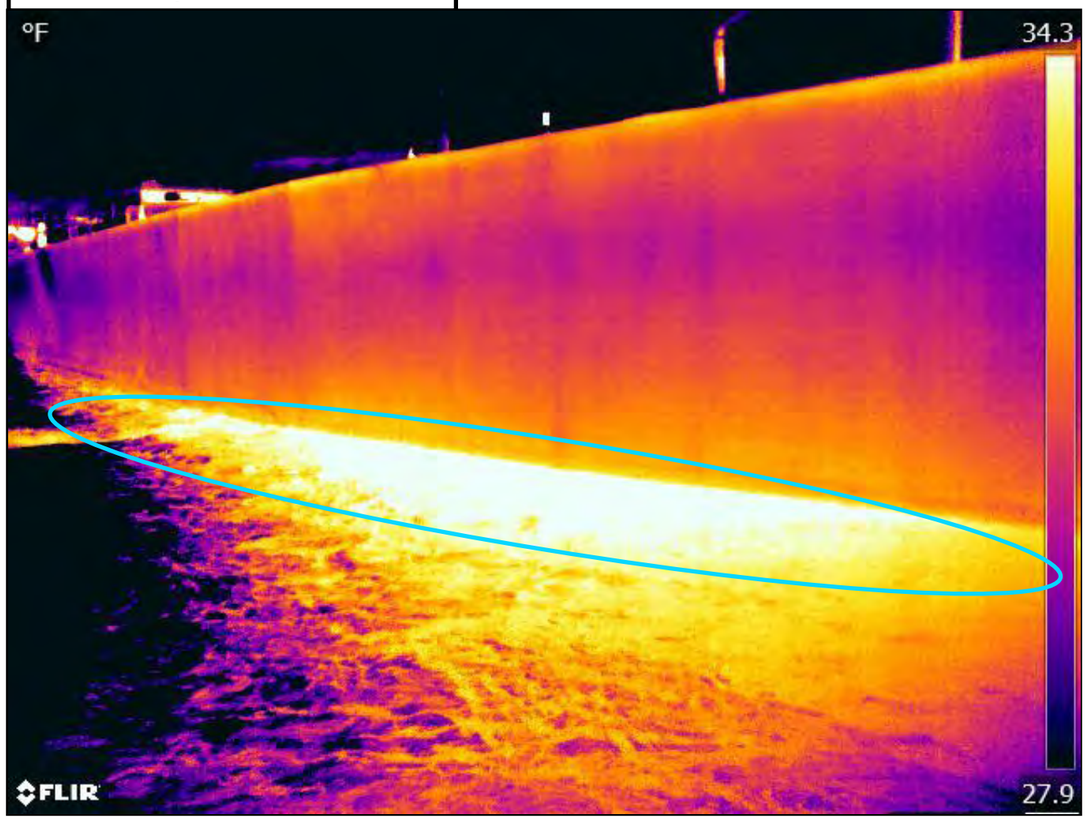
Figure 25d - Results of Infrared Drone Survey – Northeastern Flood Wall 2

Legend

Area of Detail Area of Interest

Cooler Warmer

Infrared Spectrum – 188 IR



Orthoimage

*Infrared temperature scale should be used for comparative purposes only and not as an absolute temperature

ERM

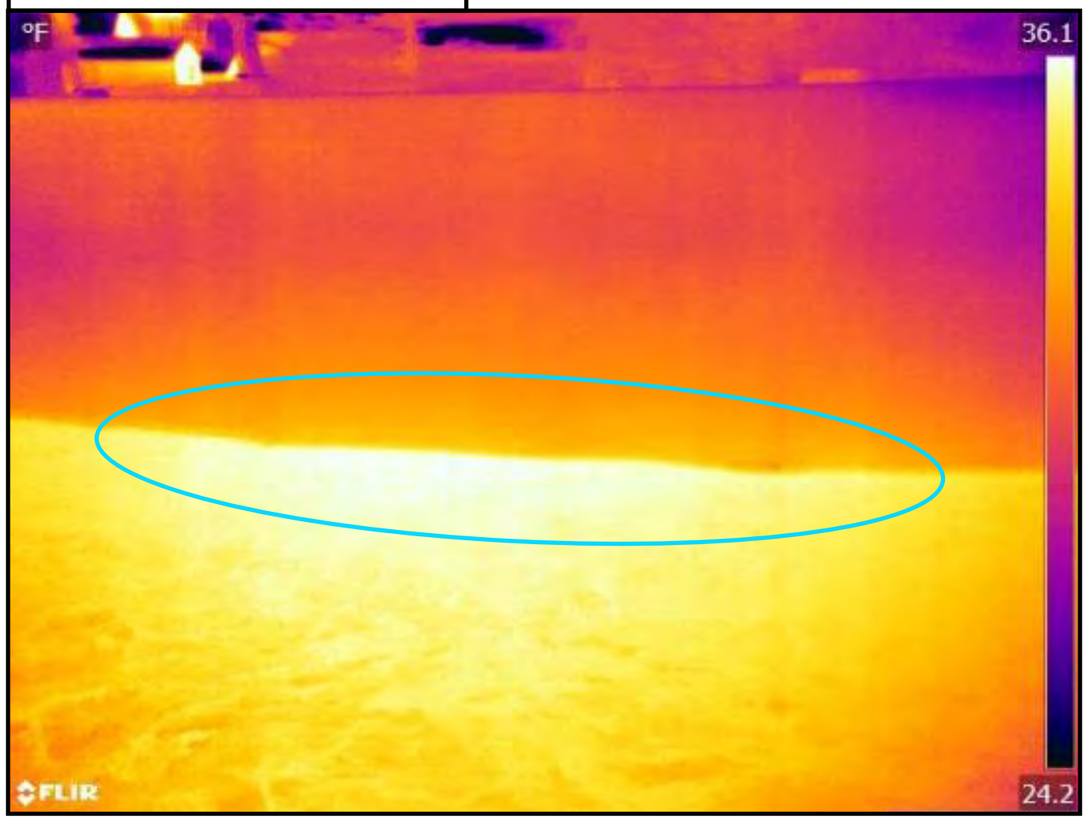
Figure 25e - Results of Infrared Drone Survey – Northeastern Flood Wall

Legend

Area of Detail Area of Interest

Cooler Warmer

Infrared Spectrum – 178_IR



Orthoimage

*Infrared temperature scale should be used for comparative purposes only and not as an absolute temperature

ERM

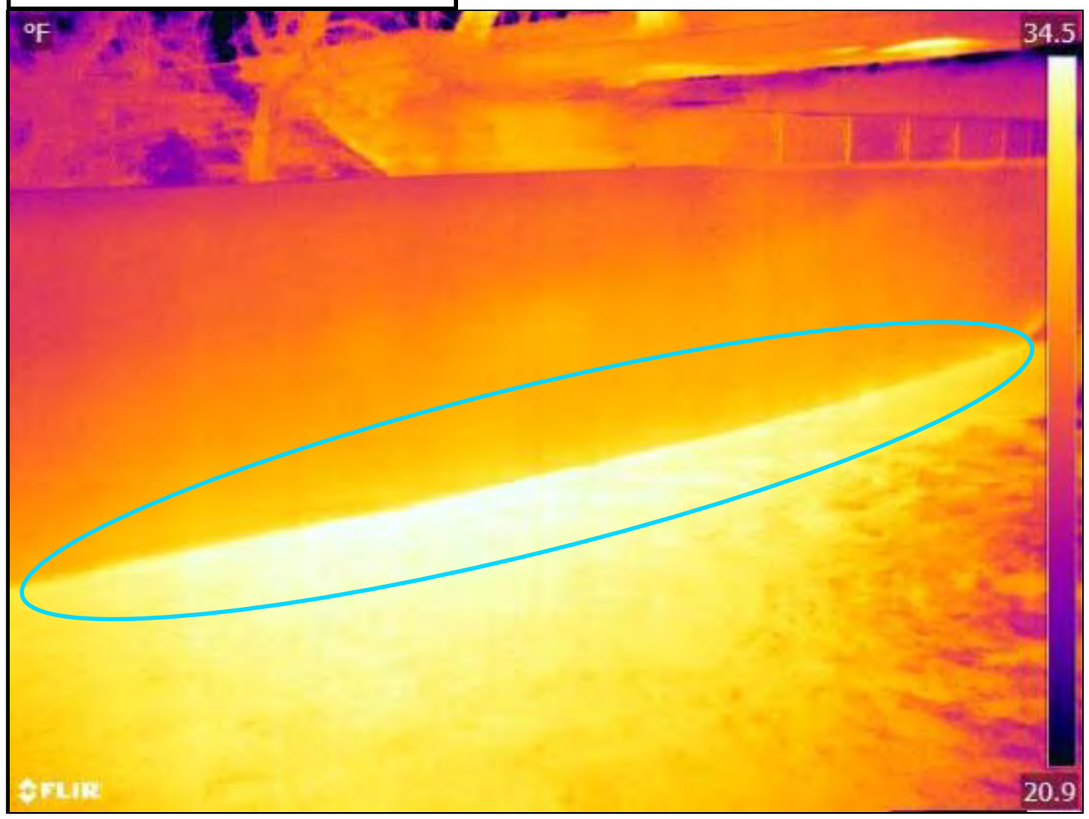
Figure 25f - Results of Infrared Drone Survey – Northern Flood Wall

Legend

Area of Detail Area of Interest

Cooler Warmer

Infrared Spectrum – 175 IR



Orthoimage

*Infrared temperature scale should be used for comparative purposes only and not as an absolute temperature

ERM

Figure 25g - Results of Infrared Drone Survey – Northwestern Flood Wall

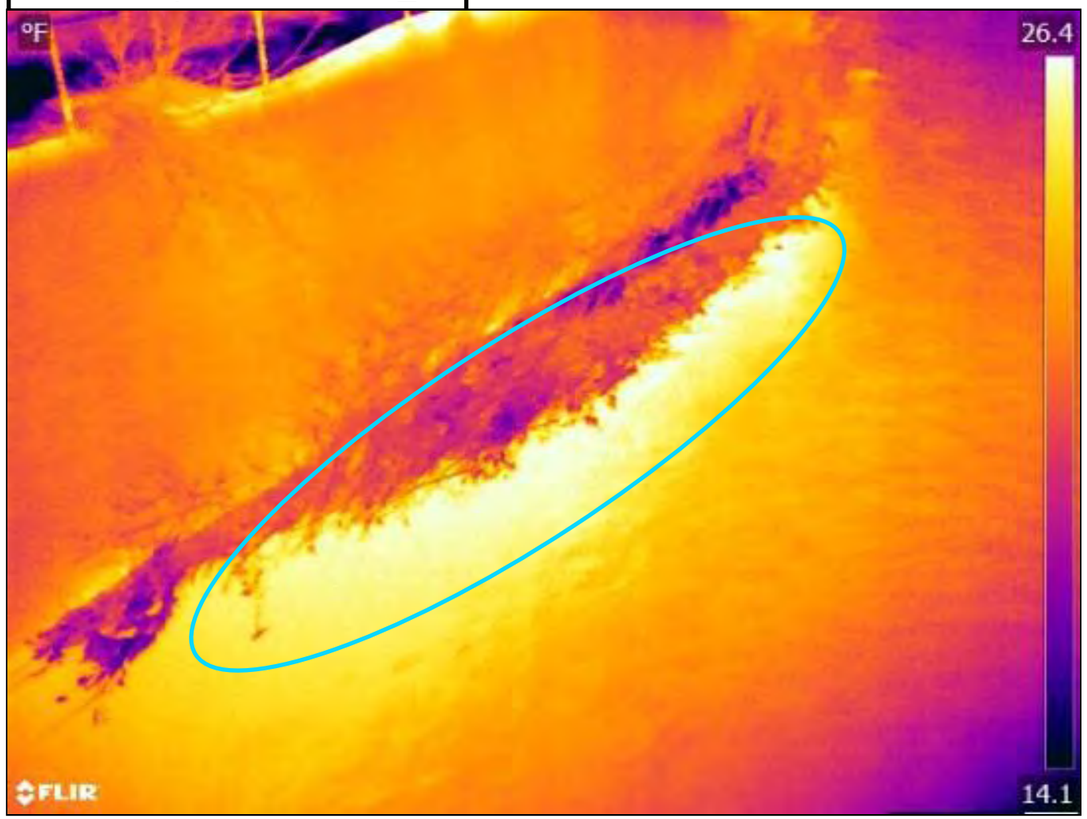
Legend

Area of Detail

Area of Interest

Cooler — Warmer

Infrared Spectrum – 033_IR



Orthoimage

*Infrared temperature scale should be used for comparative purposes only and not as an absolute temperature

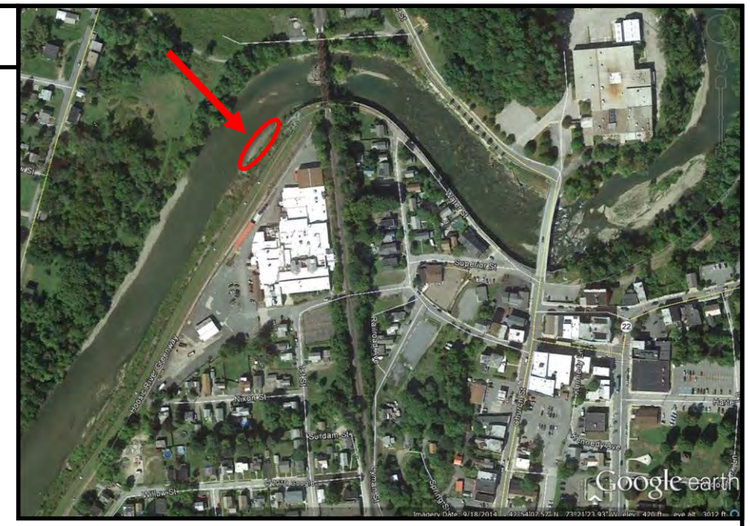
ERM

Figure 25h - Results of Infrared Drone Survey – Northern Levee

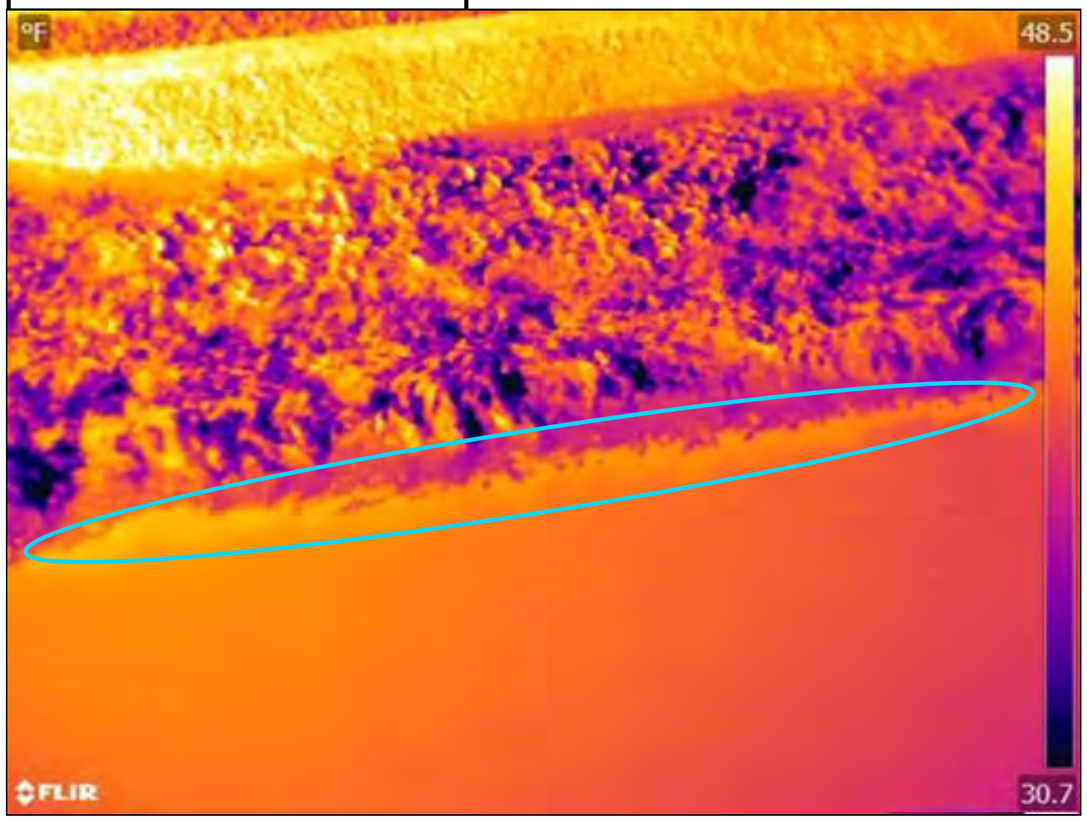
Legend

Area of Detail Area of Interest

Cooler Warmer



Infrared Spectrum – 049_IR



Orthoimage

*Infrared temperature scale should be used for comparative purposes only and not as an absolute temperature

ERM

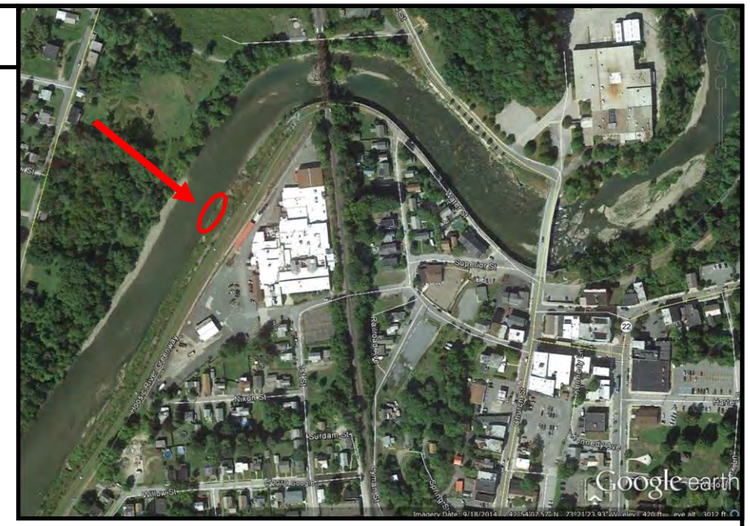
Figure 25i - Results of Infrared Drone Survey – Central Levee

Legend

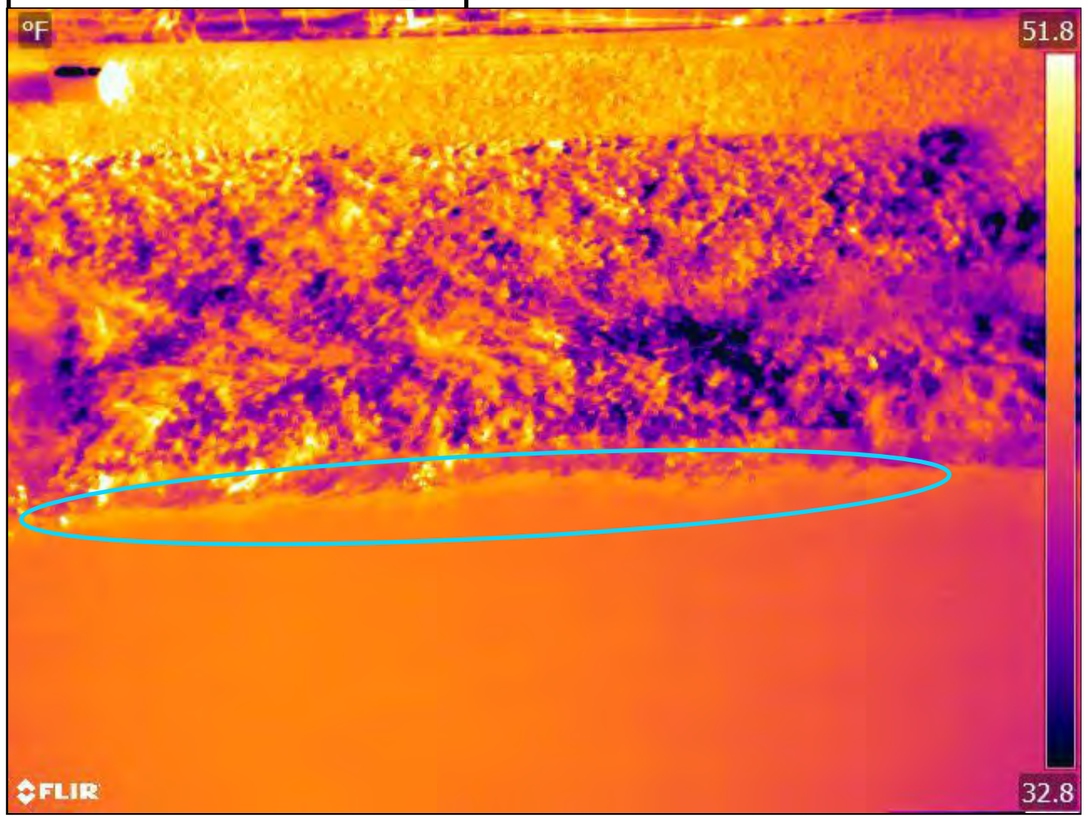
Area of Detail

Area of Interest

Cooler — Warmer



Infrared Spectrum – 064_IR



Orthoimage

*Infrared temperature scale should be used for comparative purposes only and not as an absolute temperature

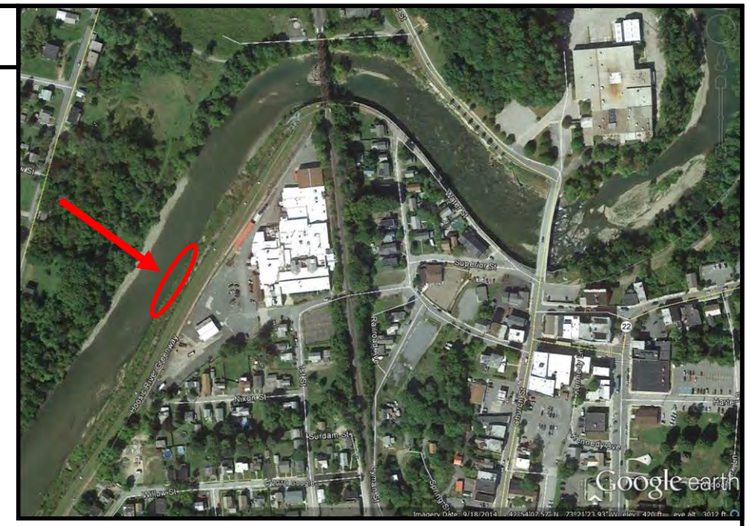
ERM

Figure 25j - Results of Infrared Drone Survey – Southern Central Levee

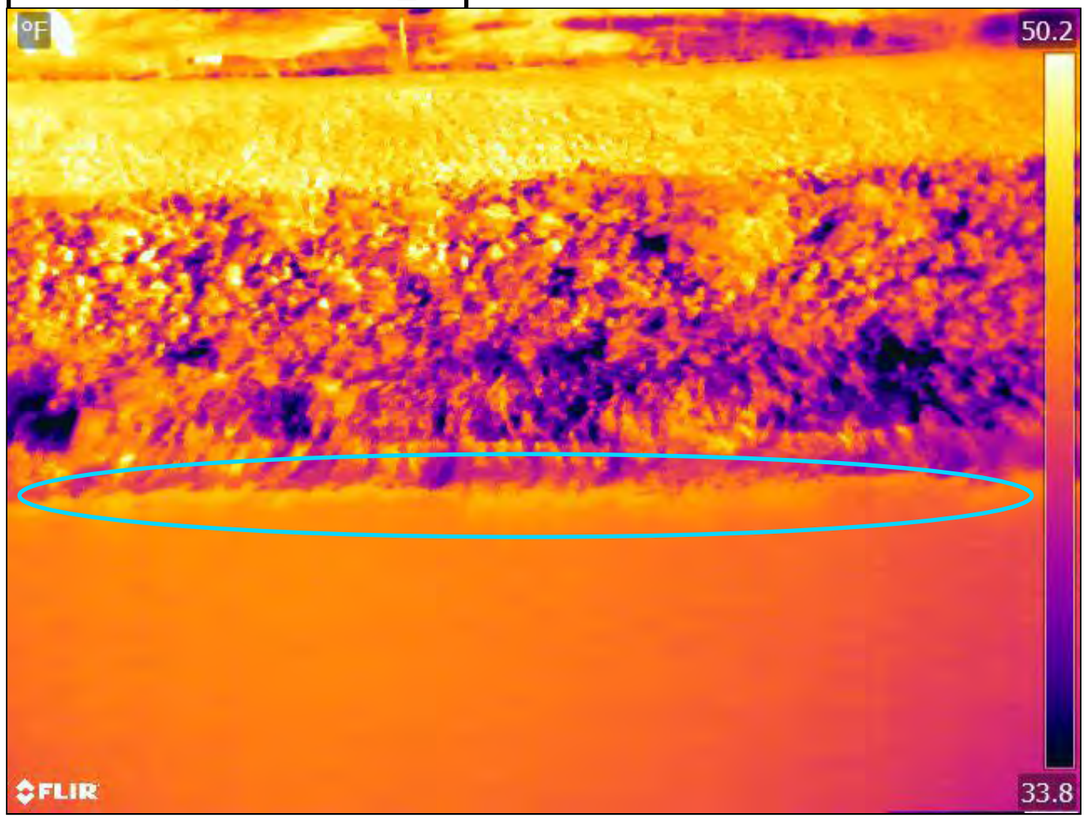
Legend

Area of Detail Area of Interest

Cooler Warmer



Infrared Spectrum – 078_IR



Orthoimage

*Infrared temperature scale should be used for comparative purposes only and not as an absolute temperature

ERM

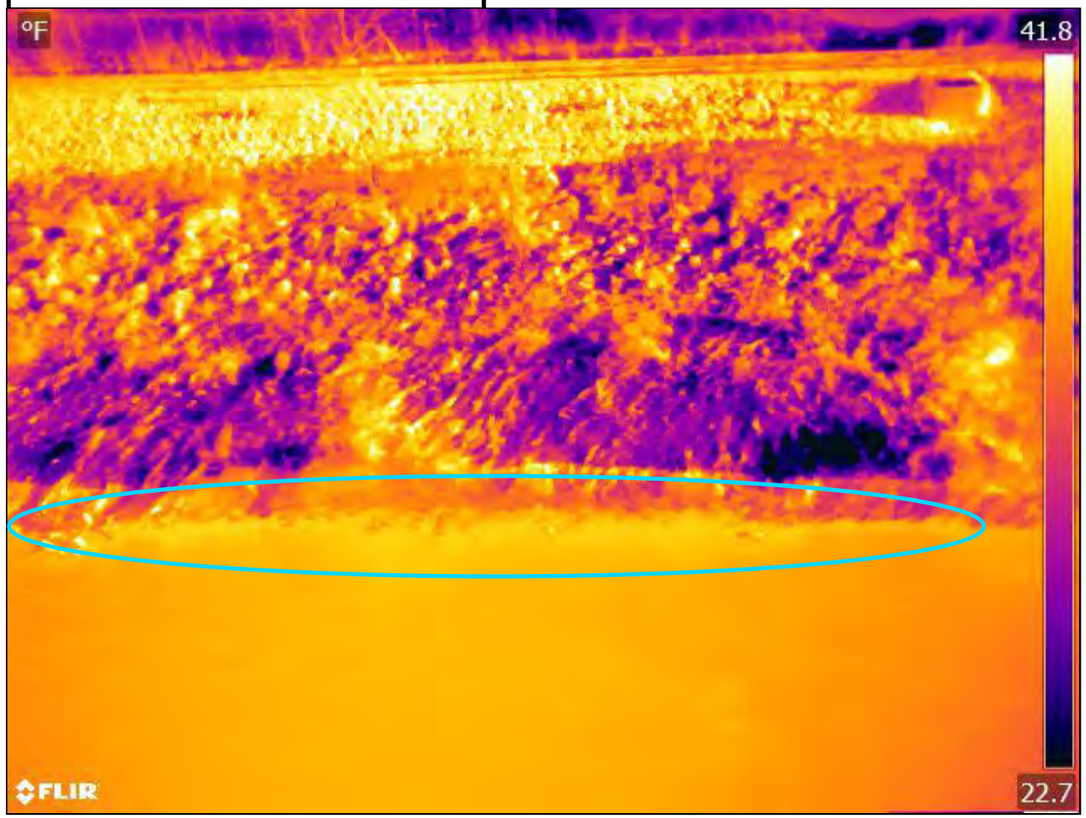
Figure 25k - Results of Infrared Drone Survey – Southern Levee

Legend

Area of Detail Area of Interest

Cooler Warmer

Infrared Spectrum – 088_IR



Standard Color

*Infrared temperature scale should be used for comparative purposes only and not as an absolute temperature

ERM

TABLES

Table 1
Summary of Records Search
Former Oak Mitsui- 80 First Street

Site Name & Address	EDR Radius Map™ Report with Geocheck®	EDR Historical Topographic Maps	EDR Historical Sanborn Maps	Historical Aerial Photographs	EDR City Directories	On-Line Historical Images
First Street Site Hoosick Falls, New York	**Oak Mitsui 1st Street**, spills closed 1990, 1991, 1993, 1999, 2007. **Oak Mitsui Fish Kill 1st St Sewer Hoosic River**, spill closed 2002. **Oak Mitsui**, Two USTs were identified on the Property. Tank number 1 is identified as a 15,000 gallon #2 fuel oil tank closed in-place prior to March 1991. Tank number 2 is identified as a 1,500 gallon #6 fuel oil tank that was closed-in place on 1 December 1987. Listed as LQG of Hazardous waste. **14 Nixon St**, 0.028 miles SSW of the site, resident reported #2 fuel oil contamination, closed 1989. **Nixon St**, 0.046 miles S of the site, spill closed 1986. **3 Lyman Street**, 0.064 miles ESE of the site, listed as a significant threat to the public health or environment, no spill recorded. **Willow St**, 0.077 miles S of the site, #2 fuel oil truck spill, spill closed in 1992. **John St Fluorglas**, 0.093 miles ESE of the site. Violation determined 1983, compliance achieved 1985. **43 Second (2nd) St**, 0.099 miles S of the site, residential #2 fuel oil leak in 2000, no spill close date. **25 Church St**, 0.105 miles ESE of the site, spills closed 2004, 2010, 2011, 2018, 2019. One spill cleanup in progress. **5 Church St**, 0.110 miles E of the site, spill closed 2011. **15 Spring St Creek**, 0.110 miles SE of the site, spill closed 2005. **9 Railroad Ave**, 0.118 miles SSE of the site, spill date 2007, spill closed 2007. **4th St @ Willow St**, 0.119 miles SSE of the site, diesel spill closed 1998. **69 Elm St**, 0.122 miles S of the site, residential oil spill closed 2016. **1 Liberty St**, 0.211 miles NNW of the site, significant threat to the public health or environment, no spill reported. **90 Church St**, 0.218 miles SE of the site, reported in 2007, spill closed 2008.	ERM reviewed historical topographic maps dated 1897, 1900, 1943, 1944, 1946, 1980, 1995, and 2013.	ERM reviewed historical Sanborn maps dated 1884, 1891, 1897, 1904, 1910, and 1945.	ERM reviewed historical aerial photographs dated 1942, 1951, 1960, 1978, 1986, 1994, 2006, 2009, 2013, and 2017.	ERM reviewed city directories for the subject property dated 1989,1992,1995,2000, 2005, 2010 and 2014.	The historical images available and reviewed on Google Earth cover the years 1994, 2006, 2007, 2008, 2009, 2011, and 2014. The property remains unchanged from 1994 through 2014.

** **EDR Radius Map™ Report with Geocheck® -** Information gathered using the following databases: RCRA-CESQG, NY AST, FINDS, NY Manifest, ECHO, NY UST, NY LTANKS, NY AIRS, ICIS

Oak Mitsui
80 First Street, Hoosick Falls, NY
Site Characterization Report

Table 2
Soil Sampling Rationale

Sample ID	Matrix	Sample Depth(s)	Sample Location	Analytical Parameters	Rationale
SOIL-SC001	Soil	Interval which indicates the highest potential for the presence of contamination	East Side	TAL Metals, TCL VOCs	To investigate the potential for contamination at the former Oak Mitsui site operations including chlorinated solvents.
SOIL-SC002	Soil	Interval which indicates the highest potential for the presence of contamination	East Side	TAL Metals, TCL VOCs, TCL SVOCs, Pesticides, PCBs, total Cyanide, PFAS, 1,4-dioxane	To investigate the potential for contamination at the former Oak Mitsui site operations including chlorinated solvents.
SOIL-SC003	Soil	Interval which indicates the highest potential for the presence of contamination	East Side	TAL Metals, TCL VOCs	To investigate the potential for contamination at the former Oak Mitsui site operations including chlorinated solvents.
SOIL-SC004	Soil	Interval which indicates the highest potential for the presence of contamination	East Side	TAL Metals, TCL VOCs, TCL SVOCs, Pesticides, PCBs, total Cyanide, PFAS, 1,4-dioxane	To investigate the potential for contamination at the former Oak Mitsui site operations.
SOIL-SC005	Soil	Interval which indicates the highest potential for the presence of contamination	East Side	TAL Metals	To investigate the potential for contamination at the former Oak Mitsui site operations.
SOIL-SC006	Soil	Interval which indicates the highest potential for the presence of contamination	East Side	TAL Metals	To investigate the potential for contamination at the former Oak Mitsui site operations.
SOIL-SC007	Soil	Interval which indicates the highest potential for the presence of contamination	East Side	TAL Metals, TCL VOCs, TCL SVOCs, Pesticides, PCBs, total Cyanide, PFAS, 1,4-dioxane	To investigate the potential for contamination at the former Oak Mitsui site operations.

Sample ID	Matrix	Sample Depth(s)	Sample Location	Analytical Parameters	Rationale
*SOIL-SC008	Soil	Interval which indicates the highest potential for the presence of contamination	East Side	TAL Metals	To investigate the potential for contamination at the former Oak Mitsui site operations.
SOIL-SC009	Soil	Interval which indicates the highest potential for the presence of contamination	East Side	TAL Metals, TCL VOCs, TCL SVOCs, Pesticides, PCBs, total Cyanide, PFAS, 1,4-dioxane	To investigate the potential for contamination at the former Oak Mitsui site operations.
SOIL-SC010	Soil	Interval which indicates the highest potential for the presence of contamination	East Side	TAL Metals	To investigate the potential for contamination at the former Oak Mitsui site operations.
*SOIL-SC011	Soil	Interval which indicates the highest potential for the presence of contamination	East Side	TAL Metals	To investigate the potential for contamination at the former Oak Mitsui site operations.
*SOIL-SC012	Soil	Interval which indicates the highest potential for the presence of contamination	East Side	TAL Metals	To investigate the potential for contamination at the former Oak Mitsui site operations.
*SOIL-SC013	Soil	Interval which indicates the highest potential for the presence of contamination	East Side	TAL Metals	To investigate the potential for contamination at the former Oak Mitsui site operations.
SOIL-SC014	Soil	Interval which indicates the highest potential for the presence of contamination	East Side	TAL Metals	To investigate the potential for contamination at the former Oak Mitsui site operations.
*SOIL-SC015	Soil	Interval which indicates the highest potential for the presence of contamination	East Side	TAL Metals	To investigate the potential for contamination at the former Oak Mitsui site operations.

Sample ID	Matrix	Sample Depth(s)	Sample Location	Analytical Parameters	Rationale
SOIL-SC016	Soil	Interval which indicates the highest potential for the presence of contamination	East Side	TAL Metals	To investigate the potential for contamination at the former Oak Mitsui site operations.
*SOIL-SC017	Soil	Interval which indicates the highest potential for the presence of contamination	East Side	TAL Metals	To investigate the potential for contamination at the former Oak Mitsui site operations.
*SOIL-SC018	Soil	Interval which indicates the highest potential for the presence of contamination	East Side	TAL Metals, TCL VOCs, TCL SVOCs, Pesticides, PCBs, total Cyanide, PFAS, 1,4-dioxane	To investigate the potential for contamination at the former Oak Mitsui site operations.
*SOIL-SC019	Soil	Interval which indicates the highest potential for the presence of contamination	East Side	TAL Metals	To investigate the potential for contamination at the former Oak Mitsui site operations.
SOIL-SC020	Soil	Interval which indicates the highest potential for the presence of contamination	West Side	TCL VOCs, TCL SVOCs, Pesticides, PCBs, total Cyanide, PFAS, 1,4-dioxane, TAL Metals	To investigate the potential for contamination at the former Hoosick Falls Gas Light Company's Coal Gasification Plant operations.
SOIL-SC021	Soil	Interval which indicates the highest potential for the presence of contamination	West Side	TCL VOCs, TCL SVOCs, Pesticides, PCBs, total Cyanide	To investigate the potential for contamination at the former Hoosick Falls Gas Light Company's Coal Gasification Plant operations.
SOIL-SC022	Soil	Interval which indicates the highest potential for the presence of contamination	West Side	TCL VOCs, TCL SVOCs, Pesticides, PCBs, total Cyanide	To investigate the potential for contamination at the former Hoosick Falls Gas Light Company's Coal Gasification Plant operations.
SOIL-SC023	Soil	Interval which indicates the highest potential for the presence of contamination	West Side	TCL VOCs, TCL SVOCs, Pesticides, PCBs, total Cyanide	To investigate the potential for contamination at the former Hoosick Falls Gas Light Company's Coal Gasification Plant operations.

Sample ID	Matrix	Sample Depth(s)	Sample Location	Analytical Parameters	Rationale
SOIL-SC024	Soil	Interval which indicates the highest potential for the presence of contamination	West Side	TCL VOCs, TCL SVOCs, Pesticides, PCBs, total Cyanide	To investigate the potential for contamination at the former Hoosick Falls Gas Light Company's Coal Gasification Plant operations.
SOIL-SC025	Soil	Interval which indicates the highest potential for the presence of contamination	West Side	TCL VOCs, TCL SVOCs, Pesticides, PCBs, total Cyanide, PFAS, 1,4-dioxane, TAL Metals	To investigate the potential for contamination at the former Hoosick Falls Gas Light Company's Coal Gasification Plant operations.
SOIL-SC026	Soil	Interval which indicates the highest potential for the presence of contamination	West Side	TCL VOCs, TCL SVOCs, Pesticides, PCBs, total Cyanide	To investigate the potential for contamination at the former Hoosick Falls Gas Light Company's Coal Gasification Plant operations.
SOIL-SC027	Soil	Interval which indicates the highest potential for the presence of contamination	West Side	TCL VOCs, TCL SVOCs, Pesticides, PCBs, total Cyanide	To investigate the potential for contamination at the former Hoosick Falls Gas Light Company's Coal Gasification Plant operations.
SOIL-SC028	Soil	Interval which indicates the highest potential for the presence of contamination	West Side	TCL VOCs, TCL SVOCs, Pesticides, PCBs, total Cyanide, PFAS, 1,4-dioxane, TAL Metals	To investigate the potential for contamination at the former Hoosick Falls Gas Light Company's Coal Gasification Plant operations.
SOIL-SC029	Soil	Interval which indicates the highest potential for the presence of contamination	East Side	TAL Metals	To investigate the potential for contamination at the former Oak Mitsui site operations.
SOIL-SC030	Soil	Interval which indicates the highest potential for the presence of contamination	East Side	TAL Metals, TCL VOCs, TCL SVOCs, Pesticides, PCBs, total Cyanide, PFAS, 1,4-dioxane	To investigate the potential for contamination at the former Oak Mitsui site operations.
SOIL-DUP-SC001	Soil	TBD	East Side	TAL Metals, TCL VOCs, TCL SVOCs, Pesticides, PCBs, total Cyanide, PFAS, 1,4-dioxane	Per QAQC procedures, two blind duplicate samples will be collected with selected soil samples to determine the precision of laboratory analysis.

Sample ID	Matrix	Sample Depth(s)	Sample Location	Analytical Parameters	Rationale
SOIL-DUP-SC002	Soil	TBD	West Side	TAL Metals, TCL VOCs, TCL SVOCs, Pesticides, PCBs, total Cyanide, PFAS, 1,4-dioxane	Per QAQC procedures, one matrix spike (MS) sample is required for every 20 samples (including duplicate samples and field or equipment blank samples).
SOIL-MS - SC001 SOIL-MSD-SC001	Soil	TBD	East Side	TAL Metals, TCL VOCs, TCL SVOCs, Pesticides, PCBs, total Cyanide, PFAS, 1,4-dioxane	Per QAQC procedures, one matrix spike (MS) sample is required for every 20 samples (including duplicate samples and field or equipment blank samples).
SOIL-MS - SC002 SOIL-MSD-SC002	Soil	TBD	West Side	TAL Metals, TCL VOCs, TCL SVOCs, Pesticides, PCBs, total Cyanide, PFAS, 1,4-dioxane	Per QAQC procedures, one matrix spike duplicate (MSD) sample is required for every 20 samples (including duplicate samples and field or equipment blank samples).

* Soil boring not completed; site characterization samples in the area of the proposed boring were collected during completion of the IRM soil excavation activities.

Table 3
Summary of Site Groundwater Characterization Tasks
Former Oak Materials – First Street

Site Characterization Tasks	*Methods/Rationale*	*Investigation Areas*
Permeability Profiling and Initial Groundwater Sampling	• Waterloo APS Profiling to log relative permeability of overburden materials • Collect initial groundwater samples • Develop approach/construction for fixed monitoring well installations	• 11 On site APS locations
Surface Geophysics Survey	• Identify locations of abandoned underground storage tanks	• North end of property
Borehole Geophysics	• Locate and determine construction of former on-site production wells A, B, D, E & F and yielding formation(s)	• Locate activities for former on-site production wells A, B, D, E & F • Access and run borehole geophysics in Former on-site production wells E & F
Fixed monitoring well installations and groundwater sampling	• Sonic drilling methods for construction of monitoring wells • Low-flow purging/sampling using peristaltic or inertial pumping systems • Characterization of groundwater quality	• Screen interval (A) straddling or just below water table; • Screen interval (B) below the clay unit and • Screen intervals (C) near the bottom of overburden • 23 On site wells • 01 Off site wells

Table 4
Summary of Site Characterization Samples
Former Oak Mitsui - 80 First Street

Sample Name	PFAS	VOCs	Metals	CN	SVOCs	TOC	PCBs	Pest-icides	pH	Other *	Notes
FS-APS-001 (15)(10302018)	X	X	X	X	X	X	X	X	X		
FS-APS-002 (13.9)(10302018)	X	X	X	X	X	X	X	X	X		
TB (10302018)		X									
EB-APS-48105 (10302018)	X										
FS-APS-006 (14.5)(10312018)	X	X	X	X	X	X	X	X	X		
FS-APS-006 (14.5)(10312018)MS	X	X	X	X	X	X	X	X	X		
FS-APS-006 (14.5)(10312018)MSD	X	X	X	X	X	X	X	X	X		
EB-APS-48108 (10302018)	X	X	X	X	X	X	X	X	X		
FS-APS-003 (14)(10312018)		X	X	X	X	X	X	X	X		
FS-APS-DUP1 (10312018)(FS-APS-003(14))	X	X	X	X	X	X	X	X	X		
FS-APS-006 (58.3)(11012018)			X		X			X			
FS-APS-003 (86.15)(11012018)	X	X	X	X	X	X	X	X	X		
TB-APS (11012018)		X									
FS-APS-006 (57.9) (10312018)		X	X	X	X	X	X	X	X		
EB-APS (10312018)	X										
FS-APS-007 (32.7)(110220189)	X	X	X	X	X	X	X	X	X		
FS-APS-008 (36.9)(11022018)	X	X	X	X	X	X	X	X	X		
TB11022018(02)		X									
EB-APS-48105 (11022018)	X										
FS-APS-006 (77.4)(11012018)	X	X	X	X	X	X	X	X	X		
FS-APS-003 (98.9) (11012018)	X	X	X	X	X	X	X	X	X		
FS-APS-007 (14.5) (11012018)	X	X	X	X	X	X	X	X	X		
FS-APS-008 (14.9) (11022018)	X	X	X	X	X	X	X	X	X		
TB11022018		X									
EB-APS-48108 (11012018)	X										
EB-APS-48105 (11012018)	X										
EB-APS-48108 (11022018)	X										
FS-APS-008 (43.2)(11052018)	X	X	X	X	X	X	X	X	X		
FS-APS-007 (74.6)(11052018)	X	X	X	X	X	X	X	X	X		
FS-APS-004 (14.3)(11052018)	X	X	X	X	X	X	X	X	X		
EB-APS-48108 (11062018)	X	X	X	X	X	X	X	X	X		
TB11062018		X									
EB-APS-48108 (11052018)	X										
EB-APS-48105 (11052018)	X										
EB-APS-48105 (11062018)	X										
FS-APS-004 (86.1)(11062018)	X	X	X	X	X	X	X	X	X		
FS-APS-005(14.7)(11062018)	X	X	X	X	X	X	X	X	X		
FS-APS-005(14.7)(11062018)MS	X	X	X	X	X	X	X	X	X		
FS-APS-005(14.7)(11062018)MSD	X	X	X	X	X	X	X	X	X		
FS-APS-009(14.5)(11062018)	X	X									
TB11072017											
EB-APS-48108(11072018)	X										
EB-APS-48105(11072018)	X										
FS-APS-005(43.3)(11072018)	X	X	X	X	X	X	X	X	X		
FS-APS-009(106.6)(11072018)		X									
TB (11072018)		X									
FS-APS-005(83.1)(11082018)	X	X	X	X	X	X	X	X	X		
FS-APS-010(14.6)(11082018)	X	X	X	X	X	X	X	X	X		
FS-APS-DUP2(11082018)(FS-APS-005(83.1))	X	X	X	X	X	X	X	X	X		
FS-APS-011(11.9)(11082018)	X	X	X	X	X	X	X	X	X		
TB(11082018)		X									
FS-APS-011(22.9)(11092018)	X	X	X	X	X	X	X	X	X		
EB-APS-48108(11082018)	X										
EB-APS-48105(11082018)	X										
EB-APS-48108(11092018)	X										
EB-APS-48105(11092018)	X										
APS Purge& Develop Water		X	X						X	X	Other = Flashpoint

Table 4
Summary of Site Characterization Samples
Former Oak Mitsui - 80 First Street

Sample Name	PFAS	VOCs	Metals	CN	SVOCs	TOC	PCBs	Pest-icides	pH	Other *	Notes
WC-18FS (05302019)		X	X	X	X		X	X	X	X	initially on COC as FS-SoilWaste (05302019); other = Herb, Rxt CN & S, Flashpoint
WC-19FS (06112019)	X	X	X	X	X	X	X	X	X	X	other = 310.13; pH cancelled per lab
WC-22FS (07152019)	X										rev'd to report PFAS to MDL
WC-23FS(07152019)		X	X	X	X		X	X	X	X	All test are TCLP (except PCBs); other = TCLP Herb, Rxt CN & S, Flashpoint
FS-MW-13B (30.5)-07222019	X	X	X	X	X/X	X	X	X	X	X	SVOC SIM includes 1,4-Dioxane; Other = Cyanide, Weak Acid Dissociable
FS-MW-13A (15.5)-07222019	X	X	X	X	X/X	X	X	X	X	X	SVOC SIM includes 1,4-Dioxane; Other = Cyanide, Weak Acid Dissociable
FS-MW-13A (15.5)-07222019 MS	X	X	X	X	X/X	X	X	X		X	SVOC SIM includes 1,4-Dioxane; Other = Cyanide, Weak Acid Dissociable
FS-MW-13A (15.5)-07222019 MSD	X	X	X	X	X/X	X	X	X		X	SVOC SIM includes 1,4-Dioxane; Other = Cyanide, Weak Acid Dissociable
FS-EB-07222019	X	X	X	X	X/X	X	X	X	X	X	SVOC SIM includes 1,4-Dioxane; Other = Cyanide, Weak Acid Dissociable
FS-TB-07222019	X	X									
FS-TMW-001 (15)-07222019			X								
FS-TMW-004 (9.5)-07222019			X								
FS-TMW-003 (18.5)-07222019			X								
FS-MW-3(14.25)(07232019)	X	X	X	X	X/X	X	X	X	X	X	SVOC SIM includes 1,4-Dioxane; Other = Cyanide, Weak Acid Dissociable
FS-MW-009C(97.3)(07232019)	X	X	X	X	X/X	X	X	X	X	X	SVOC SIM includes 1,4-Dioxane; Other = Cyanide, Weak Acid Dissociable
FS-MW-007A(15)(07232019)	X	X	X	X	X/X	X	X	X	X	X	SVOC SIM includes 1,4-Dioxane; Other = Cyanide, Weak Acid Dissociable
FS-MW-12B(45)(07232019)	X	X	X	X	X/X	X	X	X	X	X	SVOC SIM includes 1,4-Dioxane; Other = Cyanide, Weak Acid Dissociable
FS-MW-1(17.75)(07232019)	X	X	X	X	X/X	X	X	X	X	X	SVOC SIM includes 1,4-Dioxane; Other = Cyanide, Weak Acid Dissociable
FS-MW-012A(12.5)(07232019)	X	X	X	X	X/X	X	X	X	X	X	SVOC SIM includes 1,4-Dioxane; Other = Cyanide, Weak Acid Dissociable
FS-MW-012C(62.5)(07232019)	X	X	X	X	X/X	X	X	X	X	X	SVOC SIM includes 1,4-Dioxane; Other = Cyanide, Weak Acid Dissociable
FS-MW-008B(37.5)-07232019	X	X	X	X	X/X	X	X	X	X	X	SVOC SIM includes 1,4-Dioxane; Other = Cyanide, Weak Acid Dissociable
DUP-07232019 FS-MW-008B(37.5)-07232019	X	X	X	X	X/X	X	X	X	X	X	SVOC SIM includes 1,4-Dioxane; Other = Cyanide, Weak Acid Dissociable
FS-EB-07232019	X	X	X	X	X/X	X	X	X	X	X	SVOC SIM includes 1,4-Dioxane; Other = Cyanide, Weak Acid Dissociable
FS-TB-07232019		X									
DUP-07242019 FS-MW-002A(11.5)-07242019	X	X	X	X	X/X	X	X	X	X	X	SVOC SIM includes 1,4-Dioxane; Other = Cyanide, Weak Acid Dissociable
FS-MW-007B(55)-07242019	X	X	X	X	X/X	X	X	X	X	X	SVOC SIM includes 1,4-Dioxane; Other = Cyanide, Weak Acid Dissociable
FS-MW-011A(18.5)-07242019	X	X	X	X	X/X	X	X	X	X	X	SVOC SIM includes 1,4-Dioxane; Other = Cyanide, Weak Acid Dissociable
FS-MW-007C(77.5)-07242019	X	X	X	X	X/X	X	X	X	X	X	SVOC SIM includes 1,4-Dioxane; Other = Cyanide, Weak Acid Dissociable
FS-MW-002A(11.5)-07242019	X	X	X	X	X/X	X	X	X	X	X	SVOC SIM includes 1,4-Dioxane; Other = Cyanide, Weak Acid Dissociable
FS-MW-002C(135)-07242019	X	X	X	X	X/X	X	X	X	X	X	SVOC SIM includes 1,4-Dioxane; Other = Cyanide, Weak Acid Dissociable
FS-MW-005A(14.5)-07242019	X	X	X	X	X/X	X	X	X	X	X	SVOC SIM includes 1,4-Dioxane; Other = Cyanide, Weak Acid Dissociable
FS-MW-005B(45.5)-07242019	X	X	X	X	X/X	X	X	X	X	X	SVOC SIM includes 1,4-Dioxane; Other = Cyanide, Weak Acid Dissociable
FS-MW-005C(82.5)-07242019	X	X	X	X	X/X	X	X	X	X	X	SVOC SIM includes 1,4-Dioxane; Other = Cyanide, Weak Acid Dissociable
FS-MW-005C(82.5)-07242019 MS	X	X	X	X	X/X	X	X	X		X	SVOC SIM includes 1,4-Dioxane; Other = Cyanide, Weak Acid Dissociable
FS-MW-005C(82.5)-07242019 MSD	X	X	X	X	X/X	X	X	X		X	SVOC SIM includes 1,4-Dioxane; Other = Cyanide, Weak Acid Dissociable
FS-MW-003A(14.5)-07242019	X	X	X	X	X/X	X	X	X	X	X	SVOC SIM includes 1,4-Dioxane; Other = Cyanide, Weak Acid Dissociable
FS-EB-07242019	X	X	X	X	X/X	X	X	X	X	X	SVOC SIM includes 1,4-Dioxane; Other = Cyanide, Weak Acid Dissociable
FS-TB-07242019		X									
FS-MW-001A(14.5)-07252019	X	X	X	X	X/X	X	X	X	X	X	SVOC SIM includes 1,4-Dioxane; Other = Cyanide, Weak Acid Dissociable
FS-MW-003B(89.5)-07252019	X	X	X	X	X/X	X	X	X	X	X	SVOC SIM includes 1,4-Dioxane; Other = Cyanide, Weak Acid Dissociable
FS-MW-4(13.57)-07252019	X	X	X	X	X/X	X	X	X	X	X	SVOC SIM includes 1,4-Dioxane; Other = Cyanide, Weak Acid Dissociable
FS-EB-07252019	X	X	X	X	X/X	X	X	X	X	X	SVOC SIM includes 1,4-Dioxane; Other = Cyanide, Weak Acid Dissociable
FS-TB-07252019		X									
FS-MW-4(10232019)-B2	X	X	X		X	X			X	X	Metals = TAL & dissolved. Other = Dis Chlor & Sulf; Alkalinity. SVOC = 1,4D only.
TB (06042019)		X									

Notes and Abbreviations

1 - Analytical methods for the above analytes are presented in Table 16 - Summary of Analytical Methods.

2 - PFAS = Per- and Polyfluoroalkyl Substances, VOCs = Volatile Organic Compounds, SVOCs = Semi-volatile Organic Compounds, TOC = Total Organic Carbon, PCBs = Polychlorintaed Biphenyls.

Table 5
Monitoring Well Construction Details
Former Oak Mitsui - 80 First Street

Monitoring Well Location	Date of Installation	Total Depth (ft bgs)	Ground Surface Elevation (ft amsl)	Reference Elevation (ft amsl)	Well Diameter (in)	Screen Slot Size (in)	Sand Pack Grain Size (mm)	Depth of Screened Interval		Elevation of Screened Interval		Outer Casing Depth (ft bgs)	Location	
								Top (ft bgs)	Bottom (ft bgs)	Top (ft amsl)	Bottom (ft amsl)		Northing	Easting
FS-MW-001A	15-May-2019	18	429.7	429.4	2	0.01	0.6-0.8	12	17	417.4	412.4	na	1483984.26	798645.89
FS-MW-002A	15-May-2019	14	426.8	426.5	2	0.01	0.6-0.8	9.0	14.0	417.5	412.5	na	1484185.54	798734.04
FS-MW-002C	17-May-2019	140	426.9	426.5	2	0.01	0.6-0.8	130	140	296.5	286.5	na	1484190.16	798737.14
FS-MW-003A	30-May-2019	17	427.1	426.6	2	0.01	0.6-0.8	12.0	17.0	414.6	409.6	na	1484257.89	798848.37
FS-MW-003B	29-May-2019	92	427.3	426.7	2	0.01	0.6-0.8	87	92	339.7	334.7	na	1484241.92	798854.19
FS-MW-005A	13-Jun-2019	17	428.4	427.9	2	0.01	0.6-0.8	12.0	17.0	415.9	410.9	na	1484370.89	799086.68
FS-MW-005B	13-Jun-2019	48	428.4	427.8	2	0.01	0.6-0.8	43	48	384.8	379.8	na	1484381.50	799085.26
FS-MW-005C	13-Jun-2019	85	428.3	427.8	2	0.01	0.6-0.8	80	85	347.8	342.8	na	1484391.41	799083.05
FS-MW-007A	5-Jun-2019	20	426.8	426.3	2	0.01	0.6-0.8	10	20	416.3	406.3	na	1484472.19	798890.53
FS-MW-007B	27-Jun-2019	60	426.8	426.4	2	0.01	0.6-0.8	50	60	376.4	366.4	na	1484481.69	798894.34
FS-MW-007C	27-Jun-2019	80	426.7	426.2	2	0.01	0.6-0.8	75	80	351.2	346.2	na	1484490.78	798898.53
FS-MW-008B	10-Jun-2019	40	428.1	427.7	2	0.01	0.6-0.8	35	40	392.7	387.7	na	1484676.10	799003.53
FS-MW-009C	19-Jun-2019	100	429	428.7	2	0.01	0.6-0.8	95	100	333.7	328.7	na	1484152.17	798948.33
FS-MW-011A	25-Jun-2019	21	424.5	424	2	0.01	0.6-0.8	16	21	408	403	na	1484818.30	799172.70
FS-MW-012A	6-Jun-2019	15	427.2	426.8	2	0.01	0.6-0.8	10	15	416.8	411.8	na	1484599.93	798949.55
FS-MW-012B	7-Jun-2019	50	427	426.6	2	0.01	0.6-0.8	40	50	386.6	376.6	na	1484592.37	798951.75
FS-MW-012C	7-Jun-2019	65	426.9	426.2	2	0.01	0.6-0.8	60	65	366.2	361.2	na	1484590.54	798943.02
FS-MW-013A	12-Jun-2019	18	428.4	428.1	2	0.01	0.6-0.8	13	18	415.1	410.1	na	1484733.28	799022.36
FS-MW-013B	12-Jun-2019	33	428.6	428.1	2	0.01	0.6-0.8	28	33	400.1	395.1	na	1484741.43	799026.86
FS-TMW-001	24-Jun-2019	20	428.7	428.3	2	0.01	0.6-0.8	10	20	418.3	408.3	na	1484372.16	798996.25
FS-TMW-002	24-Jun-2019	14	428.5	428.3	2	0.01	0.6-0.8	4	14	424.3	414.3	na	1484344.48	798970.51
FS-TMW-003	24-Jun-2019	23.5	428.3	428	2	0.01	0.6-0.8	14	24	414.5	404.5	na	1484295.15	798995.51
FS-TMW-004	19-Jun-2019	12	428.7	428.3	2	0.01	0.6-0.8	7	12	421.3	416.3	na	1484364.08	799008.10
FS-MW-1	-	22.82	428.3	428.2	2	0.01	0.6-0.8	12.75	22.75	415.45	405.45	na	1484708.74	799014.62
FS-MW-3	-	19.19	429	428.7	2	0.01	0.6-0.8	9.25	19.25	419.45	409.45	na	1484148.43	798939.16
FS-MW-4	-	18.22	429	428.7	2	0.01	0.6-0.8	8.57	18.57	420.13	410.13	na	1484172.65	799110.14

Notes and Abbreviations

ft = feet
in = inches
amsl = above mean sea level
mm = millimeters
bgs = below ground surface
na- Not Applicable
Wells constructed with 2-inch diameter polyvinyl chloride (PVC) screen and riser
Survey coordinates are in NAD83 State Plane New York East FIPS 3101 (US Feet).

TABLE 6

Oak Mitsui

80 First St, Hoosick Falls, NY

Site Characterization and IRM* Soil Sample Results

DETECTED COMPOUNDS ONLY

(*IRM samples exhibiting SCO exceedances within soil left in place)

					Area	AOC 1 & 2 (Treater 4&5)				AOC 3 (Treater 2&3)		AOC 4 (Treater 2/3)			AOC 5 (Drum Deck)		AOC 6 (11-20 Spent Tank)		
					Date	12/5/2017	11/3/2017	11/16/2017	12/7/2017	11/13/2017	11/13/2017	11/13/2017	11/17/2017	11/20/2017	11/30/2017	11/30/2017	10/4/2017	10/20/2017	10/20/2017
					Location & Depth	B101A (13')	S108 (4'-8')	S105A1 (4'-8')	S105A1 (4'-8')	B103 (6')	S111 (2'-6')	S115 (8'-12')	B104A (14')	S117 (6'-12')	B106 (9')	S118 (2'-6')	Spent Tank Bottom (13')	Spent Tank South Sidewall E (6'-10')	Spent Tank North Sidewall E (6'-10')
Parameter	Part 375 Protection of Groundwater SCO	Part 375 Industrial SCO	Part 375 Comm. SCO	Units					Repeat Sample for PCBs only										
Volatile Organic Compounds (VOCs)																			
1,2,3-Trichlorobenzene	NS	NS	NS	ppm					NA			NA						NA	NA
1,2,4-Trichlorobenzene	3.6	NS	NS	ppm					NA			NA						NA	NA
1,2-Dichlorobenzene	1.1	1,000	500	ppm					NA			NA						NA	NA
1,3-Dichlorobenzene	2.4	560	280	ppm					NA			NA						NA	NA
1,4-Dichlorobenzene	1.8	250	130	ppm					NA			NA						NA	NA
2-Butanone	0.12	NS	NS	ppm					NA			NA						NA	NA
Acetone	0.05	1,000	500	ppm		0.0098 J			NA			NA		**0.088**				NA	NA
Benzene	0.06	89	44	ppm					NA			NA						NA	NA
Bromomethane	NS	NS	NS	ppm					NA			NA						NA	NA
Carbon disulfide	NS	NS	NS	ppm					NA			NA						NA	NA
Chloroform	0.37	700	350	ppm					NA			NA					0.0005 J vs	NA	NA
Cyclohexane	NS	NS	NS	ppm					NA			NA						NA	NA
Ethylbenzene	1	780	390	ppm					NA			NA						NA	NA
Isopropylbenzene	NS	NS	NS	ppm					NA			NA						NA	NA
Methyl cyclohexane	NS	NS	NS	ppm					NA			NA						NA	NA
Methyl ethyl ketone	0.12	1,000	500	ppm					NA			NA						NA	NA
Styrene	NA	NA	NA	ppm					NA			NA						NA	NA
Toluene	0.7	1,000	500	ppm		0.00033 J			NA			NA						NA	NA
o-Xylene	NS	NS	NS	ppm					NA			NA						NA	NA
p/m-Xylene	NS	NS	NS	ppm					NA			NA						NA	NA
Semivolatile Organic Compounds (SVOCs)																			
2,4-Dimethylphenol	NS	NS	NS	ppm					NA			NA						NA	NA
2-Methylnaphthalene	NS	NS	NS	ppm					NA			NA						NA	NA
2-Methylphenol	0.33	NS	NS	ppm					NA			NA						NA	NA
3,3'-Dichlorobenzidine	NS	NS	NS	ppm		51 UJ			NA			NA		49 UJ				NA	NA
3-Methylphenol/4-Methylphenol	0.33	NS	NS	ppm					NA			NA						NA	NA
4-Chloroaniline	NS	NS	NS	ppm				35 UJ	NA			NA		33 UJ	32 UJ	34 UJ		NA	NA
Acenaphthene	98	1,000	500	ppm					NA			NA						NA	NA
Acenapthylene	107	1,000	500	ppm					NA			NA						NA	NA
Anthracene	1,000	1,000	500	ppm					NA			NA						NA	NA
Benzo(a)anthracene	1	11	5.6	ppm					NA			NA						NA	NA
Benzo(a)pyrene	22	1.1	1	ppm					NA			NA					0.41 J	NA	NA
Benzo(b)fluoranthene	1.7	11	5.6	ppm					NA			NA					0.35 J	NA	NA
Benzo(g,h,i)perylene	1,000	1,000	500	ppm					NA			NA					0.30 J	NA	NA
Benzo(k)fluoranthene	1.7	110	56	ppm					NA			NA					0.19 J	NA	NA
Biphenyl	NS	NS	NS	ppm					NA			NA						NA	NA
Carbazole	NS	NS	NS	ppm					NA			NA						NA	NA
Chrysene	1	110	56	ppm					NA			NA					0.30 J	NA	NA
Dibenzo(a,h)anthracene	1,000	1.1	0.56	ppm					NA			NA						NA	NA
Dibenzofuran	210	1,000	350	ppm					NA			NA						NA	NA
Fluoranthene	1,000	1,000	500	ppm					NA			NA					0.46 J	NA	NA
Fluorene	386	1,000	500	ppm					NA			NA						NA	NA
Hexachlorocyclopentadiene	NS	NS	NS	ppm		170 UJ			NA			NA					ND	NA	NA
Indeno(1,2,3-cd)pyrene	8.2	11	5.6	ppm					NA			NA					0.33 J	NA	NA
Naphthalene	12	1,000	500	ppm					NA			NA						NA	NA
Phenanthrene	1,000	1,000	500	ppm					NA			NA					0.22 J	NA	NA
Phenol	0.33	1,000	500	ppm					NA			NA						NA	NA
Pyrene	1,000	1,000	500	ppm					NA			NA					0.41 J	NA	NA

TABLE 6

Oak Mitsui

80 First St, Hoosick Falls, NY

Site Characterization and IRM* Soil Sample Results

DETECTED COMPOUNDS ONLY

(*IRM samples exhibiting SCO exceedances within soil left in place)

					Area	AOC 1 & 2 (Treater 4&5)				AOC 3 (Treater 2&3)		AOC 4 (Treater 2/3)			AOC 5 (Drum Deck)		AOC 6 (11-20 Spent Tank)		
					Date	12/5/2017	11/3/2017	11/16/2017	12/7/2017	11/13/2017	11/13/2017	11/13/2017	11/17/2017	11/20/2017	11/30/2017	11/30/2017	10/4/2017	10/20/2017	10/20/2017
					Location & Depth	B101A (13')	S108 (4'-8')	S105A1 (4'-8')	S105A1 (4'-8')	B103 (6')	S111 (2'-6')	S115 (8'-12')	B104A (14')	S117 (6'-12')	B106 (9')	S118 (2'-6')	Spent Tank Bottom (13')	Spent Tank South Sidewall E (6'-10')	Spent Tank North Sidewall E (6'-10')
Parameter	Part 375 Protection of Groundwater SCO	Part 375 Industrial SCO	Part 375 Comm. SCO	Units					Repeat Sample for PCBs only										
PCBs																			
Aroclor 1254	NS	NS	NS	ppm				0.142	0.234			NA						NA	NA
Aroclor 1260	NS	NS	NS	ppm				0.142				NA						NA	NA
Total PCBs	3.2	25	1	ppm				0.142	0.234			NA						NA	NA
Pesticides																			
4,4'-DDT	136	94	47	ppm					NA			NA					0.63 J	NA	NA
delta-BHC	0.25	1,000	500	ppm					NA			NA				0.000813 N+		NA	NA
Dieldrin	0.1	2.8	1.4	ppm				0.00227 ?IR	NA			NA						NA	NA
Endosulfan II	102	920	200	ppm				0.00226 ?IR	NA			NA						NA	NA
Endosulfan sulfate	1,000	920	200	ppm					NA			NA						NA	NA
Heptachlor epoxide	NS	NS	NS	ppm					NA			NA						NA	NA
Metals																			
Aluminum	NS	NS	NS	ppm	17700	9760	9090	NA	3250	11700	NA	18000	8290	7250	8180	11200	NA	NA	
Antimony	NS	NS	NS	ppm	1.65 J			NA	0.329 UJ	0.362 UJ	NA			0.323 UJ	0.331 UJ	0.59 J	NA	NA	
Arsenic	16	16	16	ppm	8.09	5.59	4.04	NA	4.44	7.28	**20.6**	7.66	4.17	2.84 J	12.3 J	4.5	**44.7**	**68.3**	
Barium	820	10,000	400	ppm	176	48.8 J+	32.5	NA	26.8	53.1	35.7	173	25.7	18.4	28	46.8	36.9	41.3	
Beryllium	47	2,700	590	ppm	0.956	0.28 J	0.244 J	NA	0.243 J	0.382 J	NA	0.84	0.211 J	0.119 J	0.113 J	0.26	NA	NA	
Cadmium	7.5	60	9.3	ppm	0.541 J	0.418 J+	0.632 J	NA	0.312 J	0.382 J	0.298	1.1	1.06		0.122 J	1.4	1.6	0.827	
Calcium	NS	NS	NS	ppm	6310	759	906	NA	756	2300	NA	8140	946	597	727	984 B	NA	NA	
Chromium, hexavalent	19	NS	400	ppm				NA			NA						NA	NA	
Chromium, trivalent	NS	NS	1,500	ppm				NA			NA						NA	NA	
Total Chromium	NS	NS	NS	ppm	21.4	10.5	9.37	NA	11	12.8	1.54	19.6	8.88	7.22 J	20.7 J	38.8	26.3	16.8	
Cobalt	NS	NS	NS	ppm	19	9.64	9.01	NA	9.76	11.1	NA	17.1	8.6	8.17	8.66	8.2	NA	NA	
Copper	1,720	10,000	270	ppm	40.2	110 J	16.2	NA	364	25.7	65.1	38.4	284	315	1160	1530	**4490**	520	
Total Cyanide	40	10,000	27	ppm			0.24 UJ	NA	0.24 UJ	0.24 UJ	NA	0.28 UJ	0.24 UJ	0.21 UJ	0.23 UJ		NA	NA	
Iron	NS	NS	NS	ppm	31600	21500	19000	NA	18800	21500	NA	31900	17700	15900 J	20900 J	22100 B	NA	NA	
Lead	450	3,900	1,000	ppm	21.6	7.83 J-	8.95 J	NA	7.3	15.4	75.2	20.9 J	8.45	8.29 J	10.9 J	14	10.8	56.2	
Magnesium	NS	NS	NS	ppm	8700	3710	3600	NA	3720 J+	4200 J+	NA	10700	3230	3460	3860	4480	NA	NA	
Manganese	2,000	10,000	10,000	ppm	918	506	463 J-	NA	404 J+	616 J+	NA	948 J-	383	342	320	268 B	NA	NA	
Mercury	0.73	5.7	2.8	ppm	0.03 J	0.03 J	0.02 J	NA	0.02 J	**1.4**	**0.73**	0.04 J			0.04 J+	0.014 J	0.04 J	0.16	
Nickel	130	10,000	310	ppm	32.7	19.3 J	16.6	NA	17.1	19.6	NA	31.8	14.5	17.1 J	19 J	25.4	NA	NA	
Potassium	NS	NS	NS	ppm	2010	734	634	NA	647	751	NA	2570	444	261	484	1220	NA	NA	
Selenium	4	6,800	1,500	ppm		0.734 J		NA			0.199 J			0.219 UJ	0.225 UJ		0.273 J	0.248 J	
Silver	8.3	6,800	1,500	ppm				NA			0.474 U						0.448 U	0.467 U	
Sodium	NS	NS	NS	ppm	313	310 J-	76.6 J-	NA	43.2 J-	42.3 J-	NA	220 J-	23.9 J-	19.6 J-	67.2 J-		NA	NA	
Thallium	NS	NS	NS	ppm			0.307 J	NA			NA	0.601 J		0.268 UJ	0.275 UJ		NA	NA	
Vanadium	NS	NS	NS	ppm	21.1	10.5	9.42	NA	8.86	11.8	NA	20	8.03	7.63 J	10.7 J		NA	NA	
Zinc	2,480	10,000	10,000	ppm	95.3	58	50.2	NA	63.7	71.2	NA	87.3	50.6	52.4 J	58.2 J		NA	NA	
PFAS																			
Perfluorobutonic acid (PFBA)	NS	NS	NS	ppb		NA	NA	NA			NA	NA				0.29	NA	NA	
Perfluoropentanoic acid (PFPeA)	NS	NS	NS	ppb		NA	NA	NA			NA	NA					NA	NA	
Perfluorohexanoic acid (PFHxA)	NS	NS	NS	ppb		0.239 J		NA		0.198 UJ	NA						NA	NA	
Perfluoroheptanoic acid (PFHpA)	NS	NS	NS	ppb				NA			NA						NA	NA	
Perfluorooctanoic acid (PFOA)	NS	NS	NS	ppb	1.25 JB	4.52	1.54 J	NA	0.736 J		NA	0.491 J	0.115 J		0.846 J	3.8	NA	NA	
1H,1H,2H,2H-Perfluorooctanesulfonic	NS	NS	NS	ppb		NA	NA	NA			NA	NA					NA	NA	
Perfluorononanoic acid (PFNA)	NS	NS	NS	ppb				NA			NA						NA	NA	
Perfluoroundecanoic acid (PFUnA)	NS	NS	NS	ppb				NA	0.0707 UJ	0.0764 UJ	NA	0.0898 UJ		0.0716 UJ	0.0691 UJ		NA	NA	
Perfluorooctanesulfonic acid (PFOS)	NS	NS	NS	ppb		0.84 J		NA	0.247 J	0.157 UJ	NA						NA	NA	
Perfluorodecanesulfonic acid (PFDS)	NS	NS	NS	ppb		NA	NA	NA			NA	NA					NA	NA	
Perfluorooctane Sulfonamide (FOSA)	NS	NS	NS	ppb		NA	NA	NA			NA	NA					NA	NA	
Perfluorotridecanoic acid (PFTrDA)	NS	NS	NS	ppb				NA			NA						NA	NA	
Perfluorotetradecanoic acid (PFTA)	NS	NS	NS	ppb				NA			NA						NA	NA	

TABLE 6

Oak Mitsui

80 First St, Hoosick Falls, NY

Site Characterization and IRM* Soil Sample Results

DETECTED COMPOUNDS ONLY

(*IRM samples exhibiting SCO exceedances within soil left in place)

				Area	AOC 1 & 2 (Treater 4&5)				AOC 3 (Treater 2&3)		AOC 4 (Treater 2/3)			AOC 5 (Drum Deck)		AOC 6 (11-20 Spent Tank)		
				Date	12/5/2017	11/3/2017	11/16/2017	12/7/2017	11/13/2017	11/13/2017	11/13/2017	11/17/2017	11/20/2017	11/30/2017	11/30/2017	10/4/2017	10/20/2017	10/20/2017
				Location & Depth	B101A (13')	S108 (4'-8')	S105A1 (4'-8')	S105A1 (4'-8')	B103 (6')	S111 (2'-6')	S115 (8'-12')	B104A (14')	S117 (6'-12')	B106 (9')	S118 (2'-6')	Spent Tank Bottom (13')	Spent Tank South Sidewall E (6'-10')	Spent Tank North Sidewall E (6'-10')
Parameter	Part 375 Protection of Groundwater SCO	Part 375 Industrial SCO	Part 375 Comm. SCO	Units				Repeat Sample for PCBs only										
Perfluorobutanesulfonic acid (PFBS)	NS	NS	NS	ppb			0.237 UJ	NA		0.246 UJ	NA	0.289 UJ			0.223 UJ		NA	NA
N-Methyl Perfluorooctanesulfonamidoa	NS	NS	NS	ppb			0.0816 UJ	NA	0.0781 UJ	0.0845 UJ	NA	0.0993 UJ		0.0792 UJ	0.0765 UJ		NA	NA
Perfluorohexanesulfonic acid (PFHxS)	NS	NS	NS	ppb				NA		0.251 UJ	NA	0.295 UJ					NA	NA
N-Ethyl Perfluorooctanesulfonamidoac	NS	NS	NS	ppb				NA	0.064 UJ	0.0692 UJ	NA	0.0814 UJ		0.0649 UJ	0.0626 UJ		NA	NA
Perfluroheptanesulfonic Acid (PFHpS)	NS	NS	NS	ppb		NA	NA	NA			NA	NA					NA	NA
1H,1H,2H,2H-Perfluorodecanesulfonic	NS	NS	NS	ppb		NA	NA	NA			NA	NA					NA	NA
Perfluorododecanoic Acid (PFDoA)	NS	NS	NS	ppb				NA			NA						NA	NA
Perfluorodecanoic acid (PFDA)	NS	NS	NS	ppb				NA	0.131 UJ	0.141 UJ	NA			0.132 UJ			NA	NA

NOTES:
SCO - Soil Cleanup Objective
Blue Highlighted Cells Exceed Industrial SCOs
Yellow Highlighted Cells Exceed Commercial SCOs but are less than Industrial SCOs
Bold Cells Exceed Protection of Groundwater SCOs
Blank cells indicate parameters that were not detected
NS - No SCO Standard established under 6NYCRR Part 375
NA - Not Analyzed
J - Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value
P - The RPD between the results for the two columns exceeds the method-specified criteria.
I - The lower value for the two columns has been reported due to obvious interference.
B - Compound also detected in the method blank
vs - Reported analyte concentrations are below 0.2 ppm and may be bias
ppm- parts per million
ppb- parts per billion

TABLE 6
Oak Mitsui
80 First St, Hoosick Falls, NY
Site Characterization and IRM* Soil Sample Results
DETECTED COMPOUNDS ONLY
(*IRM samples exhibiting SCO exceedances within soil left in place)

					Area	AOC 7 (1-10 Spent Tank)				AOC 8 (Filtration)				AOC 9 (QAQC LAB)		AOC 10 (Copper Press)		
					Date	11/29/2017	11/29/2017	11/29/2017	11/29/2017	11/30/2017	11/30/2017	11/30/2017	11/17/2017	11/14/2017	11/14/2017	12/7/2017	12/7/2017	12/7/2017
					Location & Depth	S130 (4'-8')	S131 (4'-8')	S132 (2'-5')	B107 (8')	S136 (4'-8')	S137 (4'-8')	B109 (8')	S134 (4'-8')	B110 (7')	S140 (3'-7')	B111 (7')	S142 (3'-7')	DUP103 (3'-7')
Parameter	Part 375 Protection of Groundwater SCO	Part 375 Industrial SCO	Part 375 Comm. SCO	Units														
Volatile Organic Compounds (VOCs)																		
1,2,3-Trichlorobenzene	NS	NS	NS	ppm		NA	NA	NA	NA	NA	NA							
1,2,4-Trichlorobenzene	3.6	NS	NS	ppm		NA	NA	NA	NA	NA	NA							
1,2-Dichlorobenzene	1.1	1,000	500	ppm		NA	NA	NA	NA	NA	NA							
1,3-Dichlorobenzene	2.4	560	280	ppm		NA	NA	NA	NA	NA	NA							
1,4-Dichlorobenzene	1.8	250	130	ppm		NA	NA	NA	NA	NA	NA							
2-Butanone	0.12	NS	NS	ppm		NA	NA	NA	NA	NA	NA	42 UJ	0.72 UJ					
Acetone	0.05	1,000	500	ppm		NA	NA	NA	NA	NA	NA			0.006 J	0.0038 J			
Benzene	0.06	89	44	ppm		NA	NA	NA	NA	NA	NA							
Bromomethane	NS	NS	NS	ppm		NA	NA	NA	NA	NA	NA							
Carbon disulfide	NS	NS	NS	ppm		NA	NA	NA	NA	NA	NA	0.072 JU						
Chloroform	0.37	700	350	ppm		NA	NA	NA	NA	NA	NA							
Cyclohexane	NS	NS	NS	ppm		NA	NA	NA	NA	NA	NA							
Ethylbenzene	1	780	390	ppm		NA	NA	NA	NA	NA	NA							
Isopropylbenzene	NS	NS	NS	ppm		NA	NA	NA	NA	NA	NA							
Methyl cyclohexane	NS	NS	NS	ppm		NA	NA	NA	NA	NA	NA							
Methyl ethyl ketone	0.12	1,000	500	ppm		NA	NA	NA	NA	NA	NA							
Styrene	NA	NA	NA	ppm		NA	NA	NA	NA	NA	NA							
Toluene	0.7	1,000	500	ppm		NA	NA	NA	NA	NA	NA							
o-Xylene	NS	NS	NS	ppm		NA	NA	NA	NA	NA	NA							
p/m-Xylene	NS	NS	NS	ppm		NA	NA	NA	NA	NA	NA							
Semivolatile Organic Compounds (SVOCs)																		
2,4-Dimethylphenol	NS	NS	NS	ppm		NA	NA	NA	NA	NA	NA							
2-Methylnaphthalene	NS	NS	NS	ppm		NA	NA	NA	NA	NA	NA							
2-Methylphenol	0.33	NS	NS	ppm		NA	NA	NA	NA	NA	NA							
3,3'-Dichlorobenzidine	NS	NS	NS	ppm		NA	NA	NA	NA	NA	NA							
3-Methylphenol/4-Methylphenol	0.33	NS	NS	ppm		NA	NA	NA	NA	NA	NA							
4-Chloroaniline	NS	NS	NS	ppm		NA	NA	NA	NA	NA	NA							
Acenaphthene	98	1,000	500	ppm		NA	NA	NA	NA	NA	NA							
Acenapthylene	107	1,000	500	ppm		NA	NA	NA	NA	NA	NA							
Anthracene	1,000	1,000	500	ppm		NA	NA	NA	NA	NA	NA							
Benzo(a)anthracene	1	11	5.6	ppm		NA	NA	NA	NA	NA	NA							0.021 J
Benzo(a)pyrene	22	1.1	1	ppm		NA	NA	NA	NA	NA	NA							
Benzo(b)fluoranthene	1.7	11	5.6	ppm		NA	NA	NA	NA	NA	NA							
Benzo(g,h,i)perylene	1,000	1,000	500	ppm		NA	NA	NA	NA	NA	NA							
Benzo(k)fluoranthene	1.7	110	56	ppm		NA	NA	NA	NA	NA	NA							
Biphenyl	NS	NS	NS	ppm		NA	NA	NA	NA	NA	NA							
Carbazole	NS	NS	NS	ppm		NA	NA	NA	NA	NA	NA							
Chrysene	1	110	56	ppm		NA	NA	NA	NA	NA	NA							0.021 J
Dibenzo(a,h)anthracene	1,000	1.1	0.56	ppm		NA	NA	NA	NA	NA	NA							
Dibenzofuran	210	1,000	350	ppm		NA	NA	NA	NA	NA	NA							
Fluoranthene	1,000	1,000	500	ppm		NA	NA	NA	NA	NA	NA							0.024 J
Fluorene	386	1,000	500	ppm		NA	NA	NA	NA	NA	NA							
Hexachlorocyclopentadiene	NS	NS	NS	ppm		NA	NA	NA	NA	NA	NA							
Indeno(1,2,3-cd)pyrene	8.2	11	5.6	ppm		NA	NA	NA	NA	NA	NA							
Naphthalene	12	1,000	500	ppm		NA	NA	NA	NA	NA	NA							
Phenanthrene	1,000	1,000	500	ppm		NA	NA	NA	NA	NA	NA	0.042 J						0.029 J
Phenol	0.33	1,000	500	ppm		NA	NA	NA	NA	NA	NA							
Pyrene	1,000	1,000	500	ppm		NA	NA	NA	NA	NA	NA							0.024 J

TABLE 6

Oak Mitsui

80 First St, Hoosick Falls, NY

Site Characterization and IRM* Soil Sample Results

DETECTED COMPOUNDS ONLY

(*IRM samples exhibiting SCO exceedances within soil left in place)

					Area	AOC 7 (1-10 Spent Tank)				AOC 8 (Filtration)				AOC 9 (QAQC LAB)		AOC 10 (Copper Press)		
					Date	11/29/2017	11/29/2017	11/29/2017	11/29/2017	11/30/2017	11/30/2017	11/30/2017	11/17/2017	11/14/2017	11/14/2017	12/7/2017	12/7/2017	12/7/2017
					Location & Depth	S130 (4'-8')	S131 (4'-8')	S132 (2'-5')	B107 (8')	S136 (4'-8')	S137 (4'-8')	B109 (8')	S134 (4'-8')	B110 (7')	S140 (3'-7')	B111 (7')	S142 (3'-7')	DUP103 (3'-7')
Parameter	Part 375 Protection of Groundwater SCO	Part 375 Industrial SCO	Part 375 Comm. SCO	Units															
PCBs																			
Aroclor 1254	NS	NS	NS	ppm	NA	NA	NA	NA	NA	NA									
Aroclor 1260	NS	NS	NS	ppm	NA	NA	NA	NA	NA	NA									
Total PCBs	3.2	25	1	ppm	NA	NA	NA	NA	NA	NA									
Pesticides																			
4,4'-DDT	136	94	47	ppm	NA	NA	NA	NA	NA	NA									
delta-BHC	0.25	1,000	500	ppm	NA	NA	NA	NA	NA	NA									
Dieldrin	0.1	2.8	1.4	ppm	NA	NA	NA	NA	NA	NA									
Endosulfan II	102	920	200	ppm	NA	NA	NA	NA	NA	NA									
Endosulfan sulfate	1,000	920	200	ppm	NA	NA	NA	NA	NA	NA									
Heptachlor epoxide	NS	NS	NS	ppm	NA	NA	NA	NA	NA	NA									
Metals																			
Aluminum	NS	NS	NS	ppm	NA	NA	NA	NA	NA	NA	11800	10300	8590	3350	8000	9510	10400		
Antimony	NS	NS	NS	ppm	NA	NA	NA	NA	NA	NA	0.763 J-	0.677 J-	1.26 J+	1.23 J+	0.819 J	1.07 J	1.27 J		
Arsenic	16	16	16	ppm	**107**	**43.6**	**68.3**	**141**	**19.9**	**161**	4.98	12.5	3.89 J+	3.37 J+	8.48	4.37	5.09		
Barium	820	10,000	400	ppm	61.1	48.8	62.1	50.3	46.1	77.7	43.7	67.3	27.7	33.5	20.2	38.4	43.2		
Beryllium	47	2,700	590	ppm	NA	NA	NA	NA	NA	NA	0.279 J	0.339 J	0.196 J+	0.263 J	0.2 J	0.309 J	0.328 J		
Cadmium	7.5	60	9.3	ppm	4.18	1.61	2.01	3.3 U	0.532	0.568	0.652 J	0.499 J	0.537 J	0.561 J	0.537 J	0.496 J	0.548 J		
Calcium	NS	NS	NS	ppm	NA	NA	NA	NA	NA	NA	498 J-	2390 J-	794	655	906	662	625		
Chromium, hexavalent	19	NS	400	ppm	NA	NA	NA	NA	NA	NA									
Chromium, trivalent	NS	NS	1,500	ppm	NA	NA	NA	NA	NA	NA									
Total Chromium	NS	NS	NS	ppm	14.7	16.7	20.6	27.7	24.4	21.9	18.4	12.5	12	9.92	8.67	11.4	12.2		
Cobalt	NS	NS	NS	ppm	NA	NA	NA	NA	NA	NA	8.32 J-	8.78 J-	6.95	6.66	6.76	9.09	10.8		
Copper	1,720	10,000	270	ppm	**4950**	1020	**5270**	**3780**	153	226	379	559	406	372	905	476	501		
Total Cyanide	40	10,000	27	ppm	NA	NA	NA	NA	NA	NA	0.24 UJ	0.26 UJ	0.24 UJ	0.23 UJ	0.23 UJ	0.23 UJ	0.24 UJ		
Iron	NS	NS	NS	ppm	NA	NA	NA	NA	NA	NA	22400	21300	19200	19400	16000	20600	22200		
Lead	450	3,900	1,000	ppm	242	19.4	98.7	23.2	8.94	15.4	8.07	10.4	13.3	10.8	6.79	14.6	16		
Magnesium	NS	NS	NS	ppm	NA	NA	NA	NA	NA	NA	4140	3980	3380	3500	3400	3750	4040		
Manganese	2,000	10,000	10,000	ppm	NA	NA	NA	NA	NA	NA	239	536	239	241	201	488	548		
Mercury	0.73	5.7	2.8	ppm	0.08	0.08 J	0.09	0.03 J	0.03 J	0.02 J	0.02 J	0.04 J	0.12	0.2	0.02 J+	0.1	0.14 J+		
Nickel	130	10,000	310	ppm	NA	NA	NA	NA	NA	NA	17.6 J-	15.6 J-	16.9	17.7	15.9	17.2	18.7		
Potassium	NS	NS	NS	ppm	NA	NA	NA	NA	NA	NA	609	603	462 J+	398 J+	380	514	560		
Selenium	4	6,800	1,500	ppm	0.925 U	0.89 U	0.552 J	0.921 U	0.894 U	0.611 J		0.687 J			0.983 J	1.32 J	1.35 J		
Silver	8.3	6,800	1,500	ppm	0.463 U	0.445 U	3.09	0.461 U	0.447 U	0.478 U									
Sodium	NS	NS	NS	ppm	NA	NA	NA	NA	NA	NA	25.4 J-	61.8 J-	32 J-	28.1 J-	600	396	440		
Thallium	NS	NS	NS	ppm	NA	NA	NA	NA	NA	NA	0.293 UJ	0.296 UJ				0.468 J	0.675 J		
Vanadium	NS	NS	NS	ppm	NA	NA	NA	NA	NA	NA	12.4 J-	11.1 J-	9.06	9.2	7.14	8.9	9.65		
Zinc	2,480	10,000	10,000	ppm	NA	NA	NA	NA	NA	NA	70.1	63.1	74.3	100	76.6	68.4	74.3		
PFAS																			
Perfluorobutonic acid (PFBA)	NS	NS	NS	ppb	NA	NA	NA	NA	NA	NA									
Perfluoropentanoic acid (PFPeA)	NS	NS	NS	ppb	NA	NA	NA	NA	NA	NA									
Perfluorohexanoic acid (PFHxA)	NS	NS	NS	ppb	NA	NA	NA	NA	NA	NA									
Perfluoroheptanoic acid (PFHpA)	NS	NS	NS	ppb	NA	NA	NA	NA	NA	NA									
Perfluorooctanoic acid (PFOA)	NS	NS	NS	ppb	NA	NA	NA	NA	NA	NA	0.275 BU	0.537 JB	1.67 J	0.214 J	0.542 J	0.973 J	0.733 J		
1H,1H,2H,2H-Perfluorooctanesulfonic	NS	NS	NS	ppb	NA	NA	NA	NA	NA	NA									
Perfluorononanoic acid (PFNA)	NS	NS	NS	ppb	NA	NA	NA	NA	NA	NA									
Perfluoroundecanoic acid (PFUnA)	NS	NS	NS	ppb	NA	NA	NA	NA	NA	NA			0.0709 UJ	0.0719 UJ					
Perfluorooctanesulfonic acid (PFOS)	NS	NS	NS	ppb	NA	NA	NA	NA	NA	NA									
Perfluorodecanesulfonic acid (PFDS)	NS	NS	NS	ppb	NA	NA	NA	NA	NA	NA									
Perfluorooctane Sulfonamide (FOSA)	NS	NS	NS	ppb	NA	NA	NA	NA	NA	NA									
Perfluorotridecanoic acid (PFTrDA)	NS	NS	NS	ppb	NA	NA	NA	NA	NA	NA									
Perfluorotetradecanoic acid (PFTA)	NS	NS	NS	ppb	NA	NA	NA	NA	NA	NA									

TABLE 6
Oak Mitsui
80 First St, Hoosick Falls, NY
Site Characterization and IRM* Soil Sample Results
DETECTED COMPOUNDS ONLY
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					Area	AOC 7 (1-10 Spent Tank)				AOC 8 (Filtration)				AOC 9 (QAQC LAB)		AOC 10 (Copper Press)		
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Parameter	Part 375 Protection of Groundwater SCO	Part 375 Industrial SCO	Part 375 Comm. SCO	Units														
Perfluorobutanesulfonic acid (PFBS)	NS	NS	NS	ppb		NA	NA	NA	NA	NA	NA							
N-Methyl Perfluorooctanesulfonamidoa	NS	NS	NS	ppb		NA	NA	NA	NA	NA	NA			0.0784 UJ	0.0795 UJ			
Perfluorohexanesulfonic acid (PFHxS)	NS	NS	NS	ppb		NA	NA	NA	NA	NA	NA							
N-Ethyl Perfluorooctanesulfonamidoac	NS	NS	NS	ppb		NA	NA	NA	NA	NA	NA			0.0642 UJ	0.0651 UJ			
Perfluroheptanesulfonic Acid (PFHpS)	NS	NS	NS	ppb		NA	NA	NA	NA	NA	NA							
1H,1H,2H,2H-Perfluorodecanesulfonic	NS	NS	NS	ppb		NA	NA	NA	NA	NA	NA							
Perfluorododecanoic Acid (PFDoA)	NS	NS	NS	ppb		NA	NA	NA	NA	NA	NA							
Perfluorodecanoic acid (PFDA)	NS	NS	NS	ppb		NA	NA	NA	NA	NA	NA			0.131 UJ	0.133 UJ			

NOTES:
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Blue Highlighted Cells Exceed Industrial SCOs
Yellow Highlighted Cells Exceed Commercial SCOs but are less than Industrial SCOs
Bold Cells Exceed Protection of Groundwater SCOs
Blank cells indicate parameters that were not detected
NS - No SCO Standard established under 6NYCRR Part 375
NA - Not Analyzed
J - Result is less than the RL but greater than or equal to the MDL and the concentr
P - The RPD between the results for the two columns exceeds the method-specified
I - The lower value for the two columns has been reported due to obvious interferer
B - Compound also detected in the method blank
vs - Reported analyte concentrations are below 0.2 ppm and may be bias
ppm- parts per million
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TABLE 6

Oak Mitsui

80 First St, Hoosick Falls, NY

Site Characterization and IRM* Soil Sample Results

DETECTED COMPOUNDS ONLY

(*IRM samples exhibiting SCO exceedances within soil left in place)

					Area	AOC 11 (Arsenic Lamella Pit)		AOC 12 (Area of B-21/C-5)		
					Date	12/5/2017	12/5/2017	9/12/2017	12/1/2017	12/1/2017
					Location & Depth	B113 (12')	S150 (8'-12')	S154 (1'-2')	S155A (1'-2')	S156A (1'-2')
Parameter	Part 375 Protection of Groundwater SCO	Part 375 Industrial SCO	Part 375 Comm. SCO	Units						
Volatile Organic Compounds (VOCs)										
1,2,3-Trichlorobenzene	NS	NS	NS	ppm			NA	NA	NA	
1,2,4-Trichlorobenzene	3.6	NS	NS	ppm			NA	NA	NA	
1,2-Dichlorobenzene	1.1	1,000	500	ppm			NA	NA	NA	
1,3-Dichlorobenzene	2.4	560	280	ppm			NA	NA	NA	
1,4-Dichlorobenzene	1.8	250	130	ppm			NA	NA	NA	
2-Butanone	0.12	NS	NS	ppm			NA	NA	NA	
Acetone	0.05	1,000	500	ppm			NA	NA	NA	
Benzene	0.06	89	44	ppm			NA	NA	NA	
Bromomethane	NS	NS	NS	ppm			NA	NA	NA	
Carbon disulfide	NS	NS	NS	ppm			NA	NA	NA	
Chloroform	0.37	700	350	ppm			NA	NA	NA	
Cyclohexane	NS	NS	NS	ppm			NA	NA	NA	
Ethylbenzene	1	780	390	ppm			NA	NA	NA	
Isopropylbenzene	NS	NS	NS	ppm			NA	NA	NA	
Methyl cyclohexane	NS	NS	NS	ppm			NA	NA	NA	
Methyl ethyl ketone	0.12	1,000	500	ppm			NA	NA	NA	
Styrene	NA	NA	NA	ppm			NA	NA	NA	
Toluene	0.7	1,000	500	ppm			NA	NA	NA	
o-Xylene	NS	NS	NS	ppm			NA	NA	NA	
p/m-Xylene	NS	NS	NS	ppm			NA	NA	NA	
Semivolatile Organic Compounds (SVOCs)										
2,4-Dimethylphenol	NS	NS	NS	ppm			NA	NA	NA	
2-Methylnaphthalene	NS	NS	NS	ppm			NA	NA	NA	
2-Methylphenol	0.33	NS	NS	ppm			NA	NA	NA	
3,3'-Dichlorobenzidine	NS	NS	NS	ppm			NA	NA	NA	
3-Methylphenol/4-Methylphenol	0.33	NS	NS	ppm			NA	NA	NA	
4-Chloroaniline	NS	NS	NS	ppm			NA	NA	NA	
Acenaphthene	98	1,000	500	ppm			NA	NA	NA	
Acenapthylene	107	1,000	500	ppm			NA	NA	NA	
Anthracene	1,000	1,000	500	ppm			NA	NA	NA	
Benzo(a)anthracene	1	11	5.6	ppm			NA	NA	NA	
Benzo(a)pyrene	22	1.1	1	ppm			NA	NA	NA	
Benzo(b)fluoranthene	1.7	11	5.6	ppm			NA	NA	NA	
Benzo(g,h,i)perylene	1,000	1,000	500	ppm			NA	NA	NA	
Benzo(k)fluoranthene	1.7	110	56	ppm			NA	NA	NA	
Biphenyl	NS	NS	NS	ppm			NA	NA	NA	
Carbazole	NS	NS	NS	ppm			NA	NA	NA	
Chrysene	1	110	56	ppm			NA	NA	NA	
Dibenzo(a,h)anthracene	1,000	1.1	0.56	ppm			NA	NA	NA	
Dibenzofuran	210	1,000	350	ppm			NA	NA	NA	
Fluoranthene	1,000	1,000	500	ppm			NA	NA	NA	
Fluorene	386	1,000	500	ppm			NA	NA	NA	
Hexachlorocyclopentadiene	NS	NS	NS	ppm			NA	NA	NA	
Indeno(1,2,3-cd)pyrene	8.2	11	5.6	ppm			NA	NA	NA	
Naphthalene	12	1,000	500	ppm			NA	NA	NA	
Phenanthrene	1,000	1,000	500	ppm			NA	NA	NA	
Phenol	0.33	1,000	500	ppm			NA	NA	NA	
Pyrene	1,000	1,000	500	ppm			NA	NA	NA	

TABLE 6

Oak Mitsui

80 First St, Hoosick Falls, NY

Site Characterization and IRM* Soil Sample Results

DETECTED COMPOUNDS ONLY

(*IRM samples exhibiting SCO exceedances within soil left in place)

				Area	AOC 11 (Arsenic Lamella Pit)		AOC 12 (Area of B-21/C-5)		
				Date	12/5/2017	12/5/2017	9/12/2017	12/1/2017	12/1/2017
				Location & Depth	B113 (12')	S150 (8'-12')	S154 (1'-2')	S155A (1'-2')	S156A (1'-2')
Parameter	Part 375 Protection of Groundwater SCO	Part 375 Industrial SCO	Part 375 Comm. SCO	Units					
PCBs									
Aroclor 1254	NS	NS	NS	ppm			NA	NA	NA
Aroclor 1260	NS	NS	NS	ppm			NA	NA	NA
Total PCBs	3.2	25	1	ppm			NA	NA	NA
Pesticides									
4,4'-DDT	136	94	47	ppm			NA	NA	NA
delta-BHC	0.25	1,000	500	ppm	0.000508 JR	0.000504 JR	NA	NA	NA
Dieldrin	0.1	2.8	1.4	ppm			NA	NA	NA
Endosulfan II	102	920	200	ppm			NA	NA	NA
Endosulfan sulfate	1,000	920	200	ppm			NA	NA	NA
Heptachlor epoxide	NS	NS	NS	ppm			NA	NA	NA
Metals									
Aluminum	NS	NS	NS	ppm	6870	12600	NA	NA	NA
Antimony	NS	NS	NS	ppm	0.75 J-	0.766 J-	NA	NA	NA
Arsenic	16	16	16	ppm	4.02	6.23	5.68	11.4	10.5
Barium	820	10,000	400	ppm	23.1	85.6	72.1	57.5	49.8
Beryllium	47	2,700	590	ppm	0.203 J	0.591	NA	NA	NA
Cadmium	7.5	60	9.3	ppm	0.274 J	0.383 J	18.2	4.62	2.29
Calcium	NS	NS	NS	ppm	1990 J-	1700 J-	NA	NA	NA
Chromium, hexavalent	19	NS	400	ppm			NA	NA	NA
Chromium, trivalent	NS	NS	1,500	ppm			NA	NA	NA
Total Chromium	NS	NS	NS	ppm	7.68	14.6	27.8	54 J-	25.2
Cobalt	NS	NS	NS	ppm	6.86 J-	11.2 J-	NA	NA	NA
Copper	1,720	10,000	270	ppm	30.8	29.2	354	2350 J	838
Total Cyanide	40	10,000	27	ppm	0.24 UJ	0.22 UJ	NA	NA	NA
Iron	NS	NS	NS	ppm	14400	24100	NA	NA	NA
Lead	450	3,900	1,000	ppm	8.85	15.8	145	319	284
Magnesium	NS	NS	NS	ppm	2970	4880	NA	NA	NA
Manganese	2,000	10,000	10,000	ppm	282	785	NA	NA	NA
Mercury	0.73	5.7	2.8	ppm	0.04 J	0.02 J	2.1	4	1.3
Nickel	130	10,000	310	ppm	12 J-	20.6 J-	NA	NA	NA
Potassium	NS	NS	NS	ppm	380	386	NA	NA	NA
Selenium	4	6,800	1,500	ppm	0.397 J	0.333 J	0.143 J	0.326 J	0.119 J
Silver	8.3	6,800	1,500	ppm			0.277 J	1.01	0.178 J
Sodium	NS	NS	NS	ppm	68.4 J-	118 J-	NA	NA	NA
Thallium	NS	NS	NS	ppm	0.278 UJ	0.316 J-	NA	NA	NA
Vanadium	NS	NS	NS	ppm	7.18 J-	12.2 J-	NA	NA	NA
Zinc	2,480	10,000	10,000	ppm	44.6	67.4	NA	NA	NA
PFAS									
Perfluorobutonic acid (PFBA)	NS	NS	NS	ppb			NA	NA	NA
Perfluoropentanoic acid (PFPeA)	NS	NS	NS	ppb			NA	NA	NA
Perfluorohexanoic acid (PFHxA)	NS	NS	NS	ppb			NA	NA	NA
Perfluoroheptanoic acid (PFHpA)	NS	NS	NS	ppb			NA	NA	NA
Perfluorooctanoic acid (PFOA)	NS	NS	NS	ppb	0.155 JB	0.224 B	NA	NA	NA
1H,1H,2H,2H-Perfluorooctanesulfonic	NS	NS	NS	ppb			NA	NA	NA
Perfluorononanoic acid (PFNA)	NS	NS	NS	ppb			NA	NA	NA
Perfluoroundecanoic acid (PFUnA)	NS	NS	NS	ppb			NA	NA	NA
Perfluorooctanesulfonic acid (PFOS)	NS	NS	NS	ppb			NA	NA	NA
Perfluorodecanesulfonic acid (PFDS)	NS	NS	NS	ppb			NA	NA	NA
Perfluorooctane Sulfonamide (FOSA)	NS	NS	NS	ppb			NA	NA	NA
Perfluorotridecanoic acid (PFTrDA)	NS	NS	NS	ppb			NA	NA	NA
Perfluorotetradecanoic acid (PFTA)	NS	NS	NS	ppb			NA	NA	NA

TABLE 6
Oak Mitsui
80 First St, Hoosick Falls, NY
Site Characterization and IRM* Soil Sample Results
DETECTED COMPOUNDS ONLY
(*IRM samples exhibiting SCO exceedances within soil left in place)

					Area	AOC 11 (Arsenic Lamella Pit)		AOC 12 (Area of B-21/C-5)		
					Date	12/5/2017	12/5/2017	9/12/2017	12/1/2017	12/1/2017
					Location & Depth	B113 (12')	S150 (8'-12')	S154 (1'-2')	S155A (1'-2')	S156A (1'-2')
Parameter	Part 375 Protection of Groundwater SCO	Part 375 Industrial SCO	Part 375 Comm. SCO	Units						
Perfluorobutanesulfonic acid (PFBS)	NS	NS	NS	ppb			NA	NA	NA	
N-Methyl Perfluorooctanesulfonamidoa	NS	NS	NS	ppb			NA	NA	NA	
Perfluorohexanesulfonic acid (PFHxS)	NS	NS	NS	ppb			NA	NA	NA	
N-Ethyl Perfluorooctanesulfonamidoac	NS	NS	NS	ppb			NA	NA	NA	
Perfluroheptanesulfonic Acid (PFHpS)	NS	NS	NS	ppb			NA	NA	NA	
1H,1H,2H,2H-Perfluorodecanesulfonic	NS	NS	NS	ppb			NA	NA	NA	
Perfluorododecanoic Acid (PFDoA)	NS	NS	NS	ppb			NA	NA	NA	
Perfluorodecanoic acid (PFDA)	NS	NS	NS	ppb			NA	NA	NA	

NOTES:
SCO - Soil Cleanup Objective
Blue Highlighted Cells Exceed Industrial SCOs
Yellow Highlighted Cells Exceed Commercial SCOs but are less than Industrial SCOs
Bold Cells Exceed Protection of Groundwater SCOs
Blank cells indicate parameters that were not detected
NS - No SCO Standard established under 6NYCRR Part 375
NA - Not Analyzed
J - Result is less than the RL but greater than or equal to the MDL and the concentr
P - The RPD between the results for the two columns exceeds the method-specified
I - The lower value for the two columns has been reported due to obvious interferer
B - Compound also detected in the method blank
vs - Reported analyte concentrations are below 0.2 ppm and may be bias
ppm- parts per million
ppb- parts per billion

TABLE 6
Oak Mitsui
80 First St, Hoosick Falls, NY
Site Characterization and IRM* Soil Sample Results
DETECTED COMPOUNDS ONLY
(*IRM samples exhibiting SCO exceedances within soil left in place)

					Area	EAST SIDE													
					Date	5/22/2018	5/23/2018	5/23/2018	5/23/2018	5/22/2018	7/30/2018	5/23/2018	5/23/2018	5/23/2018	5/23/2018	5/23/2018	5/23/2018	5/23/2018	5/23/2018
					Location & Depth	SOIL-SC001 (6'-8')	SOIL-SC002 (12'-16')	SOIL-SC003 (4'-8')	SOIL-SC003 (12'-15')	SOIL-SC004 (4'-8')	SOIL-SC004A (4'-8')	SOIL-SC005 (12'-13')	SOIL-SC006 (12'-13')	SOIL-SC007 (8'-12')	SOIL-DUP-SC001	SOIL-SC009 (10'-12')	SOIL-SC010 (12'-13')	SOIL-SC014 (4'-5')	SOIL-SC014 (13'-14')
Parameter	Part 375 Protection of Groundwater SCO	Part 375 Industrial SCO	Part 375 Comm. SCO	Units														
Volatile Organic Compounds (VOCs)																			
1,2,3-Trichlorobenzene	NS	NS	NS	ppm		0.19 UJ					NA	NA	NA				NA	NA	NA
1,2,4-Trichlorobenzene	3.6	NS	NS	ppm		0.16 UJ					NA	NA	NA				NA	NA	NA
1,2-Dichlorobenzene	1.1	1,000	500	ppm		0.14 UJ					NA	NA	NA				NA	NA	NA
1,3-Dichlorobenzene	2.4	560	280	ppm		0.17 UJ					NA	NA	NA				NA	NA	NA
1,4-Dichlorobenzene	1.8	250	130	ppm		0.14 UJ					NA	NA	NA				NA	NA	NA
2-Butanone	0.12	NS	NS	ppm							NA	NA	NA				NA	NA	NA
Acetone	0.05	1,000	500	ppm				0.0083 J	0.032	0.0052 J	NA	NA	NA				NA	NA	NA
Benzene	0.06	89	44	ppm							NA	NA	NA				NA	NA	NA
Bromomethane	NS	NS	NS	ppm							NA	NA	NA				NA	NA	NA
Carbon disulfide	NS	NS	NS	ppm							NA	NA	NA				NA	NA	NA
Chloroform	0.37	700	350	ppm							NA	NA	NA				NA	NA	NA
Cyclohexane	NS	NS	NS	ppm					0.00047 J	0.00073 J	NA	NA	NA				NA	NA	NA
Ethylbenzene	1	780	390	ppm							NA	NA	NA				NA	NA	NA
Isopropylbenzene	NS	NS	NS	ppm							NA	NA	NA				NA	NA	NA
Methyl cyclohexane	NS	NS	NS	ppm							NA	NA	NA				NA	NA	NA
Methyl ethyl ketone	0.12	1,000	500	ppm					0.0071 J		NA	NA	NA				NA	NA	NA
Styrene	NA	NA	NA	ppm							NA	NA	NA				NA	NA	NA
Toluene	0.7	1,000	500	ppm				0.00022 J			NA	NA	NA				NA	NA	NA
o-Xylene	NS	NS	NS	ppm							NA	NA	NA				NA	NA	NA
p/m-Xylene	NS	NS	NS	ppm							NA	NA	NA				NA	NA	NA
Semivolatile Organic Compounds (SVOCs)																			
2,4-Dimethylphenol	NS	NS	NS	ppm				NA	NA		NA	NA	NA				NA	NA	NA
2-Methylnaphthalene	NS	NS	NS	ppm				NA	NA	0.27	NA	NA	NA				NA	NA	NA
2-Methylphenol	0.33	NS	NS	ppm				NA	NA		NA	NA	NA				NA	NA	NA
3,3'-Dichlorobenzidine	NS	NS	NS	ppm				NA	NA		NA	NA	NA				NA	NA	NA
3-Methylphenol/4-Methylphenol	0.33	NS	NS	ppm				NA	NA	0.029 J	NA	NA	NA				NA	NA	NA
4-Chloroaniline	NS	NS	NS	ppm				NA	NA		NA	NA	NA				NA	NA	NA
Acenaphthene	98	1,000	500	ppm				NA	NA	0.15	NA	NA	NA				NA	NA	NA
Acenapthylene	107	1,000	500	ppm				NA	NA	0.18	NA	NA	NA				NA	NA	NA
Anthracene	1,000	1,000	500	ppm				NA	NA	0.53	NA	NA	NA				NA	NA	NA
Benzo(a)anthracene	1	11	5.6	ppm			0.059 J	NA	NA	**1.5**	NA	NA	NA		0.062 J		NA	NA	NA
Benzo(a)pyrene	22	1.1	1	ppm			0.06 J	NA	NA	1.7	NA	NA	NA		0.091 J		NA	NA	NA
Benzo(b)fluoranthene	1.7	11	5.6	ppm			0.075 J	NA	NA	**2.4**	NA	NA	NA		0.12		NA	NA	NA
Benzo(g,h,i)perylene	1,000	1,000	500	ppm			0.048 J	NA	NA	1.2	NA	NA	NA		0.071 J		NA	NA	NA
Benzo(k)fluoranthene	1.7	110	56	ppm			0.031 J	NA	NA	**7.4**	NA	NA	NA		0.03 J		NA	NA	NA
Biphenyl	NS	NS	NS	ppm				NA	NA	0.05 J	NA	NA	NA				NA	NA	NA
Carbazole	NS	NS	NS	ppm				NA	NA	0.25	NA	NA	NA				NA	NA	NA
Chrysene	1	110	56	ppm			0.058 J	NA	NA	**1.7**	NA	NA	NA		0.059 J		NA	NA	NA
Dibenzo(a,h)anthracene	1,000	1.1	0.56	ppm				NA	NA	0.31	NA	NA	NA				NA	NA	NA
Dibenzofuran	210	1,000	350	ppm				NA	NA	0.18	NA	NA	NA				NA	NA	NA
Fluoranthene	1,000	1,000	500	ppm			0.092 J	NA	NA	3.2	NA	NA	NA		0.068 J		NA	NA	NA
Fluorene	386	1,000	500	ppm				NA	NA	0.19	NA	NA	NA				NA	NA	NA
Hexachlorocyclopentadiene	NS	NS	NS	ppm				NA	NA		NA	NA	NA				NA	NA	NA
Indeno(1,2,3-cd)pyrene	8.2	11	5.6	ppm			0.044 J	NA	NA	1.2	NA	NA	NA		0.076 J		NA	NA	NA
Naphthalene	12	1,000	500	ppm				NA	NA	0.28	NA	NA	NA				NA	NA	NA
Phenanthrene	1,000	1,000	500	ppm			0.072 J	NA	NA	2.3	NA	NA	NA		0.033 J		NA	NA	NA
Phenol	0.33	1,000	500	ppm				NA	NA		NA	NA	NA				NA	NA	NA
Pyrene	1,000	1,000	500	ppm			0.08 J	NA	NA	2.9	NA	NA	NA		0.059 J		NA	NA	NA

TABLE 6
Oak Mitsui
80 First St, Hoosick Falls, NY
Site Characterization and IRM* Soil Sample Results
DETECTED COMPOUNDS ONLY
(*IRM samples exhibiting SCO exceedances within soil left in place)

					Area	EAST SIDE													
					Date	5/22/2018	5/23/2018	5/23/2018	5/23/2018	5/22/2018	7/30/2018	5/23/2018	5/23/2018	5/23/2018	5/23/2018	5/23/2018	5/23/2018	5/23/2018	5/23/2018
					Location & Depth	SOIL-SC001 (6'-8')	SOIL-SC002 (12'-16')	SOIL-SC003 (4'-8')	SOIL-SC003 (12'-15')	SOIL-SC004 (4'-8')	SOIL-SC004A (4'-8')	SOIL-SC005 (12'-13')	SOIL-SC006 (12'-13')	SOIL-SC007 (8'-12')	SOIL-DUP-SC001	SOIL-SC009 (10'-12')	SOIL-SC010 (12'-13')	SOIL-SC014 (4'-5')	SOIL-SC014 (13'-14')
Parameter	Part 375 Protection of Groundwater SCO	Part 375 Industrial SCO	Part 375 Comm. SCO	Units														
PCBs																			
Aroclor 1254	NS	NS	NS	ppm				NA	NA		NA	NA	NA				NA	NA	NA
Aroclor 1260	NS	NS	NS	ppm				NA	NA	0.016 JN	NA	NA	NA				NA	NA	NA
Total PCBs	3.2	25	1	ppm				NA	NA	0.016	NA	NA	NA				NA	NA	NA
Pesticides																			
4,4'-DDT	136	94	47	ppm				NA	NA		NA	NA	NA				NA	NA	NA
delta-BHC	0.25	1,000	500	ppm				NA	NA		NA	NA	NA				NA	NA	NA
Dieldrin	0.1	2.8	1.4	ppm				NA	NA		NA	NA	NA				NA	NA	NA
Endosulfan II	102	920	200	ppm				NA	NA		NA	NA	NA				NA	NA	NA
Endosulfan sulfate	1,000	920	200	ppm				NA	NA		NA	NA	NA				NA	NA	NA
Heptachlor epoxide	NS	NS	NS	ppm				NA	NA		NA	NA	NA				NA	NA	NA
Metals																			
Aluminum	NS	NS	NS	ppm	9170	7380	6360 J	6210	4270	NA	4780	6830	10800	11400	10000	9120	10100	7540
Antimony	NS	NS	NS	ppm		0.915 J	0.445	5.51	5.55	NA		5					25.4	
Arsenic	16	16	16	ppm	5.52	3.65	3.95	6.46	**40.8**	**21.9**	10.2	7.5	4.35	4.84	3.9	3.54	**125**	**91.2**
Barium	820	10,000	400	ppm	50.4 J	47.2	35.9	34.5	87.7 J	NA	30.7	65.2	52.4	51.4	37.6	28.6	45.4	33.8
Beryllium	47	2,700	590	ppm	0.309 J	0.145 J	0.188 J	0.158 J	0.242 J	NA	0.141 J	0.207 J	0.271 J	0.303 J	0.252 J	0.198 J	0.162 J	0.041 J
Cadmium	7.5	60	9.3	ppm	0.499 J				4.21	NA						0.162 J	0.694 J	
Calcium	NS	NS	NS	ppm	1380 J	1380 J-	1460 J-	1640 J-	3370 J	NA	1040 J-	2250 J-	908 J-	769 J-	846 J-	634 J-	2810 J-	678 J-
Chromium, hexavalent	19	NS	400	ppm						NA								
Chromium, trivalent	NS	NS	1,500	ppm						NA								
Total Chromium	NS	NS	NS	ppm	9.52	9.18	24.3	19.5	22.8	NA	17.1	10.5	10.5	10.9	9.74	10.5	77.3	11.5
Cobalt	NS	NS	NS	ppm	10	7.66	5.74	7.31	15.9	NA	14.7	7.83	10.1	10.9	9.75	8.52	6.57	5.37
Copper	1,720	10,000	270	ppm	15.2	139	103	163	187	NA	69.1	154	18.9	21.4	209	606	**1870**	392
Total Cyanide	40	10,000	27	ppm	0.23 UJ	0.21 UJ	NA	NA	0.27 J-	NA	NS	NS	0.25 UJ	0.24 UJ	0.25 UJ	NS	NS	NS
Iron	NS	NS	NS	ppm	20200 J	19300	42100	65000	197000 J	NA	108000	19300	21700	22700	21100	19300	32000	21300
Lead	450	3,900	1,000	ppm	10.3	13	53.1	57.7	292	NA	10.4	90.3	8.45	9.09	7.97	10.4	25	5.56
Magnesium	NS	NS	NS	ppm	3880 J	3000 J-	1070 J-	2060 J-	1120 J	NA	2240 J-	2670 J-	3710 J-	3800 J-	3400 J-	3260 J-	3300 J-	2910 J-
Manganese	2,000	10,000	10,000	ppm	822 J	667 J	1020 J	480 J	1690 J	NA	927 J	414 J	574 J	644 J	532 J	396 J	196 J	161 J
Mercury	0.73	5.7	2.8	ppm	0.02 J+	0.056 J	0.095 J	**0.897 J**	**3.75 J+**	NA	0.027 J			0.018 J	0.016 J		0.051 J	
Nickel	130	10,000	310	ppm	17	12.9	11.2	14.8	42.4	NA	21.2	14.1	17.2	18	17.1	17.5	15.9	12
Potassium	NS	NS	NS	ppm	521	522	574	505	416	NA	539	480	700	801	582	564	1450	505
Selenium	4	6,800	1,500	ppm	0.508 J	0.556 J	1.27 J	1.2 J	**6.29**	NA	1.85	0.647 J	0.655 J	0.277 J	0.654 J	0.655 J	0.901 J	0.625 J
Silver	8.3	6,800	1,500	ppm						NA								
Sodium	NS	NS	NS	ppm	25.8 J	100 J	109 J	101 J	113 J	NA	86.5 J	78.6 J	52.1 J	60.8 J	49.6 J	69.1 J	637	173
Thallium	NS	NS	NS	ppm		0.269 UJ	0.27 UJ	0.263 UJ	3.08	NA	0.277 UJ	0.283 UJ	0.295 UJ	0.281 UJ	0.294 UJ	0.283 UJ	0.284 UJ	0.259 UJ
Vanadium	NS	NS	NS	ppm	8.53	7.94	28.9	18.4	50.2	NA	30.1	8.73	10.5	11.2	9.66	8.73	16.5	9.42
Zinc	2,480	10,000	10,000	ppm	53.7	44.1	59.1	64.5	191	NA	55.2	102	59.2	61.6	58.7	65.1	61.6	38.6
PFAS																			
Perfluorobutonic acid (PFBA)	NS	NS	NS	ppb			NA	NA			NA	NA				NA	NA	NA
Perfluoropentanoic acid (PFPeA)	NS	NS	NS	ppb			NA	NA			NA	NA				NA	NA	NA
Perfluorohexanoic acid (PFHxA)	NS	NS	NS	ppb			NA	NA		0.182 J	NA	NA				NA	NA	NA
Perfluoroheptanoic acid (PFHpA)	NS	NS	NS	ppb			NA	NA	0.287 J	0.319 J	NA	NA				NA	NA	NA
Perfluorooctanoic acid (PFOA)	NS	NS	NS	ppb	0.678 J	1.71	NA	NA	33.7	1.03 J	NA	NA			0.053 J	NA	NA	NA
1H,1H,2H,2H-Perfluorooctanesulfonic	NS	NS	NS	ppb		0.551 JU	NA	NA			NA	NA	0.33 JU	1.19	0.253 JU	NA	NA	NA
Perfluorononanoic acid (PFNA)	NS	NS	NS	ppb			NA	NA			NA	NA				NA	NA	NA
Perfluoroundecanoic acid (PFUnA)	NS	NS	NS	ppb			NA	NA			NA	NA				NA	NA	NA
Perfluorooctanesulfonic acid (PFOS)	NS	NS	NS	ppb			NA	NA	0.629 J		NA	NA				NA	NA	NA
Perfluorodecanesulfonic acid (PFDS)	NS	NS	NS	ppb			NA	NA	0.103 UJ		NA	NA			0.114 UJ	NA	NA	NA
Perfluorooctane Sulfonamide (FOSA)	NS	NS	NS	ppb			NA	NA	0.109 UJ		NA	NA			0.12 UJ	NA	NA	NA
Perfluorotridecanoic acid (PFTrDA)	NS	NS	NS	ppb			NA	NA			NA	NA				NA	NA	NA
Perfluorotetradecanoic acid (PFTA)	NS	NS	NS	ppb			NA	NA			NA	NA				NA	NA	NA

TABLE 6
Oak Mitsui
80 First St, Hoosick Falls, NY
Site Characterization and IRM* Soil Sample Results
DETECTED COMPOUNDS ONLY
(*IRM samples exhibiting SCO exceedances within soil left in place)

					Area	EAST SIDE													
					Date	5/22/2018	5/23/2018	5/23/2018	5/23/2018	5/22/2018	7/30/2018	5/23/2018	5/23/2018	5/23/2018	5/23/2018	5/23/2018	5/23/2018	5/23/2018	5/23/2018
					Location & Depth	SOIL-SC001 (6'-8')	SOIL-SC002 (12'-16')	SOIL-SC003 (4'-8')	SOIL-SC003 (12'-15')	SOIL-SC004 (4'-8')	SOIL-SC004A (4'-8')	SOIL-SC005 (12'-13')	SOIL-SC006 (12'-13')	SOIL-SC007 (8'-12')	SOIL-DUP-SC001	SOIL-SC009 (10'-12')	SOIL-SC010 (12'-13')	SOIL-SC014 (4'-5')	SOIL-SC014 (13'-14')
Parameter	Part 375 Protection of Groundwater SCO	Part 375 Industrial SCO	Part 375 Comm. SCO	Units															
Perfluorobutanesulfonic acid (PFBS)	NS	NS	NS	ppb				NA	NA			NA	NA				NA	NA	NA
N-Methyl Perfluorooctanesulfonamidoa	NS	NS	NS	ppb				NA	NA			NA	NA				NA	NA	NA
Perfluorohexanesulfonic acid (PFHxS)	NS	NS	NS	ppb				NA	NA			NA	NA				NA	NA	NA
N-Ethyl Perfluorooctanesulfonamidoac	NS	NS	NS	ppb				NA	NA			NA	NA				NA	NA	NA
Perfluroheptanesulfonic Acid (PFHpS)	NS	NS	NS	ppb				NA	NA			NA	NA				NA	NA	NA
1H,1H,2H,2H-Perfluorodecanesulfonic	NS	NS	NS	ppb				NA	NA			NA	NA				NA	NA	NA
Perfluorododecanoic Acid (PFDoA)	NS	NS	NS	ppb				NA	NA			NA	NA				NA	NA	NA
Perfluorodecanoic acid (PFDA)	NS	NS	NS	ppb				NA	NA			NA	NA				NA	NA	NA

NOTES:
SCO - Soil Cleanup Objective
Blue Highlighted Cells Exceed Industrial SCOs
Yellow Highlighted Cells Exceed Commercial SCOs but are less than Industrial SCOs
Bold Cells Exceed Protection of Groundwater SCOs
Blank cells indicate parameters that were not detected
NS - No SCO Standard established under 6NYCRR Part 375
NA - Not Analyzed
J - Result is less than the RL but greater than or equal to the MDL and the concentra
P - The RPD between the results for the two columns exceeds the method-specified
I - The lower value for the two columns has been reported due to obvious interferer
B - Compound also detected in the method blank
vs - Reported analyte concentrations are below 0.2 ppm and may be bias
ppm- parts per million
ppb- parts per billion

TABLE 6

Oak Mitsui

80 First St, Hoosick Falls, NY

Site Characterization and IRM* Soil Sample Results

DETECTED COMPOUNDS ONLY

(*IRM samples exhibiting SCO exceedances within soil left in place)

				Area	EAST SIDE								
				Date	5/22/2018	5/22/2018	5/22/2018	7/30/2018	7/30/2018	7/30/2018	7/30/2018	7/30/2018	7/30/2018
				Location & Depth	SOIL-SC016 (8'-11')	SOIL-SC029 (8'-12')	SOIL-SC030 (8'-12')	SOIL-SC031 (4'-8')	SOIL-SC032 (4'-8')	SOIL-DUP104 (4'-8')	SOIL-SC033 (4'-8')	SOIL-SC034 (4'-8')	SOIL-SC035 (4'-8')
Parameter	Part 375 Protection of Groundwater SCO	Part 375 Industrial SCO	Part 375 Comm. SCO	Units									
Volatile Organic Compounds (VOCs)													
1,2,3-Trichlorobenzene	NS	NS	NS	ppm	NA	NA		NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	3.6	NS	NS	ppm	NA	NA		NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	1.1	1,000	500	ppm	NA	NA		NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	2.4	560	280	ppm	NA	NA		NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	1.8	250	130	ppm	NA	NA		NA	NA	NA	NA	NA	NA
2-Butanone	0.12	NS	NS	ppm	NA	NA		NA	NA	NA	NA	NA	NA
Acetone	0.05	1,000	500	ppm	NA	NA		NA	NA	NA	NA	NA	NA
Benzene	0.06	89	44	ppm	NA	NA		NA	NA	NA	NA	NA	NA
Bromomethane	NS	NS	NS	ppm	NA	NA		NA	NA	NA	NA	NA	NA
Carbon disulfide	NS	NS	NS	ppm	NA	NA		NA	NA	NA	NA	NA	NA
Chloroform	0.37	700	350	ppm	NA	NA		NA	NA	NA	NA	NA	NA
Cyclohexane	NS	NS	NS	ppm	NA	NA		NA	NA	NA	NA	NA	NA
Ethylbenzene	1	780	390	ppm	NA	NA		NA	NA	NA	NA	NA	NA
Isopropylbenzene	NS	NS	NS	ppm	NA	NA		NA	NA	NA	NA	NA	NA
Methyl cyclohexane	NS	NS	NS	ppm	NA	NA		NA	NA	NA	NA	NA	NA
Methyl ethyl ketone	0.12	1,000	500	ppm	NA	NA		NA	NA	NA	NA	NA	NA
Styrene	NA	NA	NA	ppm	NA	NA		NA	NA	NA	NA	NA	NA
Toluene	0.7	1,000	500	ppm	NA	NA		NA	NA	NA	NA	NA	NA
o-Xylene	NS	NS	NS	ppm	NA	NA		NA	NA	NA	NA	NA	NA
p/m-Xylene	NS	NS	NS	ppm	NA	NA		NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds (SVOCs)													
2,4-Dimethylphenol	NS	NS	NS	ppm	NA	NA		NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	NS	NS	NS	ppm	NA	NA		NA	NA	NA	NA	NA	NA
2-Methylphenol	0.33	NS	NS	ppm	NA	NA		NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	NS	NS	NS	ppm	NA	NA		NA	NA	NA	NA	NA	NA
3-Methylphenol/4-Methylphenol	0.33	NS	NS	ppm	NA	NA		NA	NA	NA	NA	NA	NA
4-Chloroaniline	NS	NS	NS	ppm	NA	NA		NA	NA	NA	NA	NA	NA
Acenaphthene	98	1,000	500	ppm	NA	NA		NA	NA	NA	NA	NA	NA
Acenapthylene	107	1,000	500	ppm	NA	NA		NA	NA	NA	NA	NA	NA
Anthracene	1,000	1,000	500	ppm	NA	NA		NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	1	11	5.6	ppm	NA	NA		NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	22	1.1	1	ppm	NA	NA		NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	1.7	11	5.6	ppm	NA	NA		NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	1,000	1,000	500	ppm	NA	NA		NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	1.7	110	56	ppm	NA	NA		NA	NA	NA	NA	NA	NA
Biphenyl	NS	NS	NS	ppm	NA	NA		NA	NA	NA	NA	NA	NA
Carbazole	NS	NS	NS	ppm	NA	NA		NA	NA	NA	NA	NA	NA
Chrysene	1	110	56	ppm	NA	NA		NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	1,000	1.1	0.56	ppm	NA	NA		NA	NA	NA	NA	NA	NA
Dibenzofuran	210	1,000	350	ppm	NA	NA		NA	NA	NA	NA	NA	NA
Fluoranthene	1,000	1,000	500	ppm	NA	NA		NA	NA	NA	NA	NA	NA
Fluorene	386	1,000	500	ppm	NA	NA		NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	NS	NS	NS	ppm	NA	NA		NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	8.2	11	5.6	ppm	NA	NA		NA	NA	NA	NA	NA	NA
Naphthalene	12	1,000	500	ppm	NA	NA		NA	NA	NA	NA	NA	NA
Phenanthrene	1,000	1,000	500	ppm	NA	NA		NA	NA	NA	NA	NA	NA
Phenol	0.33	1,000	500	ppm	NA	NA		NA	NA	NA	NA	NA	NA
Pyrene	1,000	1,000	500	ppm	NA	NA		NA	NA	NA	NA	NA	NA

TABLE 6

Oak Mitsui

80 First St, Hoosick Falls, NY

Site Characterization and IRM* Soil Sample Results

DETECTED COMPOUNDS ONLY

(*IRM samples exhibiting SCO exceedances within soil left in place)

					Area	EAST SIDE							
					Date	5/22/2018	5/22/2018	5/22/2018	7/30/2018	7/30/2018	7/30/2018	7/30/2018	7/30/2018	7/30/2018
					Location & Depth	SOIL-SC016 (8'-11')	SOIL-SC029 (8'-12')	SOIL-SC030 (8'-12')	SOIL-SC031 (4'-8')	SOIL-SC032 (4'-8')	SOIL-DUP104 (4'-8')	SOIL-SC033 (4'-8')	SOIL-SC034 (4'-8')	SOIL-SC035 (4'-8')
Parameter	Part 375 Protection of Groundwater SCO	Part 375 Industrial SCO	Part 375 Comm. SCO	Units									
PCBs													
Aroclor 1254	NS	NS	NS	ppm	NA	NA		NA	NA	NA	NA	NA	NA
Aroclor 1260	NS	NS	NS	ppm	NA	NA		NA	NA	NA	NA	NA	NA
Total PCBs	3.2	25	1	ppm	NA	NA		NA	NA	NA	NA	NA	NA
Pesticides													
4,4'-DDT	136	94	47	ppm	NA	NA		NA	NA	NA	NA	NA	NA
delta-BHC	0.25	1,000	500	ppm	NA	NA		NA	NA	NA	NA	NA	NA
Dieldrin	0.1	2.8	1.4	ppm	NA	NA		NA	NA	NA	NA	NA	NA
Endosulfan II	102	920	200	ppm	NA	NA		NA	NA	NA	NA	NA	NA
Endosulfan sulfate	1,000	920	200	ppm	NA	NA		NA	NA	NA	NA	NA	NA
Heptachlor epoxide	NS	NS	NS	ppm	NA	NA		NA	NA	NA	NA	NA	NA
Metals													
Aluminum	NS	NS	NS	ppm	8730	8120	6340	NA	NA	NA	NA	NA	NA
Antimony	NS	NS	NS	ppm				NA	NA	NA	NA	NA	NA
Arsenic	16	16	16	ppm	4.91	4.88	7.5	14.6	5.04 J	7.35 J	9.5	5.21	14.6
Barium	820	10,000	400	ppm	28.8 J	26.3 J	98.9 J	NA	NA	NA	NA	NA	NA
Beryllium	47	2,700	590	ppm	0.242 J	0.196 J	0.236 J	NA	NA	NA	NA	NA	NA
Cadmium	7.5	60	9.3	ppm	0.344 J	0.434 J	0.481 J	NA	NA	NA	NA	NA	NA
Calcium	NS	NS	NS	ppm	1030 J	719 J	1090 J	NA	NA	NA	NA	NA	NA
Chromium, hexavalent	19	NS	400	ppm				NA	NA	NA	NA	NA	NA
Chromium, trivalent	NS	NS	1,500	ppm				NA	NA	NA	NA	NA	NA
Total Chromium	NS	NS	NS	ppm	9.64	7.1	9.05	NA	NA	NA	NA	NA	NA
Cobalt	NS	NS	NS	ppm	6	7.95	8.14	NA	NA	NA	NA	NA	NA
Copper	1,720	10,000	270	ppm	13.1	12.2	22.9	NA	NA	NA	NA	NA	NA
Total Cyanide	40	10,000	27	ppm	NS	NS	0.21 UJ	NA	NA	NA	NA	NA	NA
Iron	NS	NS	NS	ppm	14200 J	20000 J	18600 J	NA	NA	NA	NA	NA	NA
Lead	450	3,900	1,000	ppm	8.31	17.7	22.4	NA	NA	NA	NA	NA	NA
Magnesium	NS	NS	NS	ppm	3600 J	3620 J	3090 J	NA	NA	NA	NA	NA	NA
Manganese	2,000	10,000	10,000	ppm	154 J	547 J	1440 J	NA	NA	NA	NA	NA	NA
Mercury	0.73	5.7	2.8	ppm				NA	NA	NA	NA	NA	NA
Nickel	130	10,000	310	ppm	13.8	15.4	14	NA	NA	NA	NA	NA	NA
Potassium	NS	NS	NS	ppm	628	367	306	NA	NA	NA	NA	NA	NA
Selenium	4	6,800	1,500	ppm	0.558 J	0.655 J	0.365 J	NA	NA	NA	NA	NA	NA
Silver	8.3	6,800	1,500	ppm				NA	NA	NA	NA	NA	NA
Sodium	NS	NS	NS	ppm	102 J	23.9 J	33.9 J	NA	NA	NA	NA	NA	NA
Thallium	NS	NS	NS	ppm			1.32 J	NA	NA	NA	NA	NA	NA
Vanadium	NS	NS	NS	ppm	10.2	6.78	5.55	NA	NA	NA	NA	NA	NA
Zinc	2,480	10,000	10,000	ppm	49.2	50.8	38.5	NA	NA	NA	NA	NA	NA
PFAS													
Perfluorobutonic acid (PFBA)	NS	NS	NS	ppb	NA	NA							
Perfluoropentanoic acid (PFPeA)	NS	NS	NS	ppb	NA	NA	0.012 J						
Perfluorohexanoic acid (PFHxA)	NS	NS	NS	ppb	NA	NA					0.148 J		0.088 J
Perfluoroheptanoic acid (PFHpA)	NS	NS	NS	ppb	NA	NA		0.141 J	0.134 J	0.086 J	0.167 J		0.096 J
Perfluorooctanoic acid (PFOA)	NS	NS	NS	ppb	NA	NA	0.159 J	20.4	5.76	6.05	1.66	0.278 J	5.98
1H,1H,2H,2H-Perfluorooctanesulfonic	NS	NS	NS	ppb	NA	NA				0.344 J			0.764 J
Perfluorononanoic acid (PFNA)	NS	NS	NS	ppb	NA	NA				0.09 J			0.212 J
Perfluoroundecanoic acid (PFUnA)	NS	NS	NS	ppb	NA	NA							0.196 J
Perfluorooctanesulfonic acid (PFOS)	NS	NS	NS	ppb	NA	NA							0.145 J
Perfluorodecanesulfonic acid (PFDS)	NS	NS	NS	ppb	NA	NA						0.1 UJ	
Perfluorooctane Sulfonamide (FOSA)	NS	NS	NS	ppb	NA	NA						0.105 UJ	
Perfluorotridecanoic acid (PFTrDA)	NS	NS	NS	ppb	NA	NA							
Perfluorotetradecanoic acid (PFTA)	NS	NS	NS	ppb	NA	NA							

TABLE 6
Oak Mitsui
80 First St, Hoosick Falls, NY
Site Characterization and IRM* Soil Sample Results
DETECTED COMPOUNDS ONLY
(*IRM samples exhibiting SCO exceedances within soil left in place)

Area					EAST SIDE								
Date					5/22/2018	5/22/2018	5/22/2018	7/30/2018	7/30/2018	7/30/2018	7/30/2018	7/30/2018	7/30/2018
Location & Depth					SOIL-SC016 (8'-11')	SOIL-SC029 (8'-12')	SOIL-SC030 (8'-12')	SOIL-SC031 (4'-8')	SOIL-SC032 (4'-8')	SOIL-DUP104 (4'-8')	SOIL-SC033 (4'-8')	SOIL-SC034 (4'-8')	SOIL-SC035 (4'-8')
Parameter	Part 375 Protection of Groundwater SCO	Part 375 Industrial SCO	Part 375 Comm. SCO	Units									
Perfluorobutanesulfonic acid (PFBS)	NS	NS	NS	ppb	NA	NA							
N-Methyl Perfluorooctanesulfonamidoa	NS	NS	NS	ppb	NA	NA							
Perfluorohexanesulfonic acid (PFHxS)	NS	NS	NS	ppb	NA	NA							
N-Ethyl Perfluorooctanesulfonamidoac	NS	NS	NS	ppb	NA	NA							
Perfluroheptanesulfonic Acid (PFHpS)	NS	NS	NS	ppb	NA	NA							
1H,1H,2H,2H-Perfluorodecanesulfonic	NS	NS	NS	ppb	NA	NA							
Perfluorododecanoic Acid (PFDoA)	NS	NS	NS	ppb	NA	NA							
Perfluorodecanoic acid (PFDA)	NS	NS	NS	ppb	NA	NA							

NOTES:
SCO - Soil Cleanup Objective
Blue Highlighted Cells Exceed Industrial SCOs
Yellow Highlighted Cells Exceed Commercial SCOs but are less than Industrial SCOs
Bold Cells Exceed Protection of Groundwater SCOs
Blank cells indicate parameters that were not detected
NS - No SCO Standard established under 6NYCRR Part 375
NA - Not Analyzed
J - Result is less than the RL but greater than or equal to the MDL and the concentr
P - The RPD between the results for the two columns exceeds the method-specified
I - The lower value for the two columns has been reported due to obvious interferer
B - Compound also detected in the method blank
vs - Reported analyte concentrations are below 0.2 ppm and may be bias
ppm- parts per million
ppb- parts per billion

TABLE 6
Oak Mitsui
80 First St, Hoosick Falls, NY
Site Characterization and IRM* Soil Sample Results
DETECTED COMPOUNDS ONLY
(*IRM samples exhibiting SCO exceedances within soil left in place)

				Area	WEST SIDE										
				Date	5/22/2018	5/22/2018	5/21/2018	5/21/2018	5/21/2018	5/21/2018	5/21/2018	5/21/2018	5/21/2018	5/21/2018	5/21/2018	5/21/2018
				Location & Depth	SOIL-SC020 (8'-12')	SOIL-DUP-SC002	SOIL-SC021 (8'-10')	SOIL-SC021A (8'-10')	SOIL-SC022 (8'-12')	SOIL-SC023 (12'-13')	SOIL-SC024 (8'-10')	SOIL-SC024A (8'-10')	SOIL-SC025 (8'-12')	SOIL-SC026 (7'-8')	SOIL-SC027 (8'-12')	SOIL-SC028 (8'-12')
Parameter	Part 375 Protection of Groundwater SCO	Part 375 Industrial SCO	Part 375 Comm. SCO	Units												
Volatile Organic Compounds (VOCs)																
1,2,3-Trichlorobenzene	NS	NS	NS	ppm												
1,2,4-Trichlorobenzene	3.6	NS	NS	ppm												
1,2-Dichlorobenzene	1.1	1,000	500	ppm												
1,3-Dichlorobenzene	2.4	560	280	ppm												
1,4-Dichlorobenzene	1.8	250	130	ppm												
2-Butanone	0.12	NS	NS	ppm												
Acetone	0.05	1,000	500	ppm				0.003 J	0.0024 J		0.014		0.0039 J			
Benzene	0.06	89	44	ppm	0.0029	0.058 J	**0.67 J+**				0.044					
Bromomethane	NS	NS	NS	ppm		0.048 J	0.03 J+									
Carbon disulfide	NS	NS	NS	ppm												
Chloroform	0.37	700	350	ppm												
Cyclohexane	NS	NS	NS	ppm	0.00047 J											
Ethylbenzene	1	780	390	ppm	0.00032 J	0.018 J	**5.4 J+**				0.00089 J					
Isopropylbenzene	NS	NS	NS	ppm			2.1 J+				0.0003 J			0.02 J		
Methyl cyclohexane	NS	NS	NS	ppm	0.00046 J	0.048 J	1.9 J+			0.44						
Methyl ethyl ketone	0.12	1,000	500	ppm	0.0051 J											
Styrene	NA	NA	NA	ppm	0.00052 J		0.39 J+				0.00083 J					
Toluene	0.7	1,000	500	ppm	0.0016	0.041 J	0.56 J+				0.011		0.00072 J	0.032 J		
o-Xylene	NS	NS	NS	ppm			0.52 J+				0.0015 J					
p/m-Xylene	NS	NS	NS	ppm	0.00099 J		1.3 J+				0.0041			0.038 J		
Semivolatile Organic Compounds (SVOCs)																
2,4-Dimethylphenol	NS	NS	NS	ppm	0.078 J											
2-Methylnaphthalene	NS	NS	NS	ppm	1.4 J	5.7 J				0.093 J	0.027 J					
2-Methylphenol	0.33	NS	NS	ppm	0.15 J	0.28 J				0.028 J						
3,3'-Dichlorobenzidine	NS	NS	NS	ppm												
3-Methylphenol/4-Methylphenol	0.33	NS	NS	ppm	**0.57**	**0.93 J**				0.057 J						
4-Chloroaniline	NS	NS	NS	ppm												
Acenaphthene	98	1,000	500	ppm	12 J	55 J	7			0.34	0.078 J					
Acenapthylene	107	1,000	500	ppm	8.6 J	27 J	12			0.074 J	0.21					
Anthracene	1,000	1,000	500	ppm	2.9 J	100 J	58			0.77						
Benzo(a)anthracene	1	11	5.6	ppm	**46 J**	**150 J**	**52**			**2.6**	0.86	0.063 J		0.031 J		
Benzo(a)pyrene	22	1.1	1	ppm	**40 J**	**120 J**	**39**			3.9	0.8	0.095 J		0.06 J		
Benzo(b)fluoranthene	1.7	11	5.6	ppm	**49 J**	**150 J**	**48**			**4.1**	0.97	0.12		0.071 J		
Benzo(g,h,i)perylene	1,000	1,000	500	ppm	23 J	66 J	20			2.6	0.42	0.084 J		0.057 J		
Benzo(k)fluoranthene	1.7	110	56	ppm	**15 J**	**32 J**	**14**			1.6	0.34	0.042 J				
Biphenyl	NS	NS	NS	ppm	0.84 J	4.6 J	15									
Carbazole	NS	NS	NS	ppm	3.0 J	11 J				0.41	0.12 J					
Chrysene	1	110	56	ppm	**36 J**	**120 J**	**42**			**2.1**	0.7	0.061 J		0.03 J		
Dibenzo(a,h)anthracene	1,000	1.1	0.56	ppm	4.7 J	1.6 J	4.4			0.72	0.11 J					
Dibenzofuran	210	1,000	350	ppm	5.6 J	29 J	37			0.16 J	0.051 J					
Fluoranthene	1,000	1,000	500	ppm	120 J	390 J	150	0.023 J		2.7	2.2	0.079 J		0.038 J	0.024 J	
Fluorene	386	1,000	500	ppm	12 J	59 J	42			0.24	0.42					
Hexachlorocyclopentadiene	NS	NS	NS	ppm												
Indeno(1,2,3-cd)pyrene	8.2	11	5.6	ppm	**27 J**	**77 J**	**24**	0.032 J		3.1	0.51	0.089 J		0.064 J		
Naphthalene	12	1,000	500	ppm	6.1 J	**16 J**	7.4			0.2	0.22					
Phenanthrene	1,000	1,000	500	ppm	74 J	350 J	5			1.7	0.32	0.037 J				
Phenol	0.33	1,000	500	ppm	**0.49 J**	**0.78 J**				0.038 J						
Pyrene	1,000	1,000	500	ppm	90 J	300 J	110		0.017 J	2.4	1.7	0.076 J			0.024 J	

TABLE 6
Oak Mitsui
80 First St, Hoosick Falls, NY
Site Characterization and IRM* Soil Sample Results
DETECTED COMPOUNDS ONLY
(*IRM samples exhibiting SCO exceedances within soil left in place)

				Area	WEST SIDE										
				Date	5/22/2018	5/22/2018	5/21/2018	5/21/2018	5/21/2018	5/21/2018	5/21/2018	5/21/2018	5/21/2018	5/21/2018	5/21/2018	5/21/2018
				Location & Depth	SOIL-SC020 (8'-12')	SOIL-DUP-SC002	SOIL-SC021 (8'-10')	SOIL-SC021A (8'-10')	SOIL-SC022 (8'-12')	SOIL-SC023 (12'-13')	SOIL-SC024 (8'-10')	SOIL-SC024A (8'-10')	SOIL-SC025 (8'-12')	SOIL-SC026 (7'-8')	SOIL-SC027 (8'-12')	SOIL-SC028 (8'-12')
Parameter	Part 375 Protection of Groundwater SCO	Part 375 Industrial SCO	Part 375 Comm. SCO	Units												
PCBs																
Aroclor 1254	NS	NS	NS	ppm												
Aroclor 1260	NS	NS	NS	ppm												
Total PCBs	3.2	25	1	ppm												
Pesticides																
4,4'-DDT	136	94	47	ppm												
delta-BHC	0.25	1,000	500	ppm												
Dieldrin	0.1	2.8	1.4	ppm												
Endosulfan II	102	920	200	ppm		0.0185 PIR										
Endosulfan sulfate	1,000	920	200	ppm						0.000917 PIR						
Heptachlor epoxide	NS	NS	NS	ppm						0.00155 JR						
Metals																
Aluminum	NS	NS	NS	ppm	5150	6710	NA	NA	NA	NA	NA	NA	7680	NA	NA	8760
Antimony	NS	NS	NS	ppm	6.66	7.12	NA	NA	NA	NA	NA	NA		NA	NA	
Arsenic	16	16	16	ppm	**18.2**	**20.4**	NA	NA	NA	NA	NA	NA	4.49	NA	NA	3.84
Barium	820	10,000	400	ppm	23.9 J	27.9 J	NA	NA	NA	NA	NA	NA	37.9	NA	NA	26.4
Beryllium	47	2,700	590	ppm	0.162 J	0.246 J	NA	NA	NA	NA	NA	NA	0.197 J	NA	NA	0.185 J
Cadmium	7.5	60	9.3	ppm	1.92 J	1.33 J	NA	NA	NA	NA	NA	NA	0.317 J	NA	NA	0.453 J
Calcium	NS	NS	NS	ppm	1290 J	1070 J	NA	NA	NA	NA	NA	NA	1020 J-	NA	NA	660 J-
Chromium, hexavalent	19	NS	400	ppm			NA	NA	NA	NA	NA	NA		NA	NA	
Chromium, trivalent	NS	NS	1,500	ppm			NA	NA	NA	NA	NA	NA		NA	NA	
Total Chromium	NS	NS	NS	ppm	15.1	15.8	NA	NA	NA	NA	NA	NA	7.54	NA	NA	7.91
Cobalt	NS	NS	NS	ppm	8.34	9.24	NA	NA	NA	NA	NA	NA	7.64	NA	NA	5.54
Copper	1,720	10,000	270	ppm	156 J	76 J	NA	NA	NA	NA	NA	NA	22.2	NA	NA	13.7
Total Cyanide	40	10,000	27	ppm	1.5	7 J-	2.5 UJ	0.22 UJ	0.22 UJ	0.97 J-	8.3 J-	0.22 UJ	0.22 UJ	0.22 UJ	0.22 UJ	0.22 UJ
Iron	NS	NS	NS	ppm	79600 J	50100 J	NA	NA	NA	NA	NA	NA	17100	NS	NA	19800
Lead	450	3,900	1,000	ppm	242 J	36.7 J	NA	NA	NA	NA	NA	NA	20.1 J	NA	NA	7.67 J
Magnesium	NS	NS	NS	ppm	1730 J	2610 J	NA	NA	NA	NA	NA	NA	2900	NA	NA	3820
Manganese	2,000	10,000	10,000	ppm	601 J	339 J	NA	NA	NA	NA	NA	NA	784 J	NA	NA	531 J
Mercury	0.73	5.7	2.8	ppm	0.081 J	0.108 J+	NA	NA	NA	NA	NA	NA	0.021 J	NA	NA	
Nickel	130	10,000	310	ppm	27.1 J-	18.8 J	NA	NA	NA	NA	NA	NA	12.4	NA	NA	15.6
Potassium	NS	NS	NS	ppm	296	328	NA	NA	NA	NA	NA	NA	596	NA	NA	370
Selenium	4	6,800	1,500	ppm	1.78	1.95	NA	NA	NA	NA	NA	NA	1.03 J	NA	NA	0.756 J
Silver	8.3	6,800	1,500	ppm			NA	NA	NA	NA	NA	NA		NA	NA	
Sodium	NS	NS	NS	ppm	45 J	50 J	NA	NA	NA	NA	NA	NA	64.8 J	NA	NA	43.2 J
Thallium	NS	NS	NS	ppm	0.383 J		NA	NA	NA	NA	NA	NA	0.985 J	NA	NA	
Vanadium	NS	NS	NS	ppm	9.57	12	NA	NA	NA	NA	NA	NA	6.22	NA	NA	6.88
Zinc	2,480	10,000	10,000	ppm	628 J	150 J	NA	NA	NA	NA	NA	NA	40.7	NA	NA	46.5
PFAS																
Perfluorobutonic acid (PFBA)	NS	NS	NS	ppb			NA	NA	NA	NA	NA	NA		NA	NA	
Perfluoropentanoic acid (PFPeA)	NS	NS	NS	ppb			NA	NA	NA	NA	NA	NA		NA	NA	
Perfluorohexanoic acid (PFHxA)	NS	NS	NS	ppb			NA	NA	NA	NA	NA	NA	0.109 J+	NA	NA	
Perfluoroheptanoic acid (PFHpA)	NS	NS	NS	ppb			NA	NA	NA	NA	NA	NA		NA	NA	
Perfluorooctanoic acid (PFOA)	NS	NS	NS	ppb	0.804 J	0.636 J	NA	NA	NA	NA	NA	NA		NA	NA	1.81
1H,1H,2H,2H-Perfluorooctanesulfonic	NS	NS	NS	ppb			NA	NA	NA	NA	NA	NA		NA	NA	
Perfluorononanoic acid (PFNA)	NS	NS	NS	ppb			NA	NA	NA	NA	NA	NA		NA	NA	
Perfluoroundecanoic acid (PFUnA)	NS	NS	NS	ppb			NA	NA	NA	NA	NA	NA		NA	NA	
Perfluorooctanesulfonic acid (PFOS)	NS	NS	NS	ppb			NA	NA	NA	NA	NA	NA		NA	NA	
Perfluorodecanesulfonic acid (PFDS)	NS	NS	NS	ppb	0.105 UJ	0.105 UR	NA	NA	NA	NA	NA	NA		NA	NA	0.106 UJ
Perfluorooctane Sulfonamide (FOSA)	NS	NS	NS	ppb	0.111 UJ	0.111 UR	NA	NA	NA	NA	NA	NA		NA	NA	0.112 UJ
Perfluorotridecanoic acid (PFTrDA)	NS	NS	NS	ppb	0.067 UJ		NA	NA	NA	NA	NA	NA		NA	NA	
Perfluorotetradecanoic acid (PFTA)	NS	NS	NS	ppb	0.076 UJ		NA	NA	NA	NA	NA	NA		NA	NA	

TABLE 6
Oak Mitsui
80 First St, Hoosick Falls, NY
Site Characterization and IRM* Soil Sample Results
DETECTED COMPOUNDS ONLY
(*IRM samples exhibiting SCO exceedances within soil left in place)

					Area	WEST SIDE											
					Date	5/22/2018	5/22/2018	5/21/2018	5/21/2018	5/21/2018	5/21/2018	5/21/2018	5/21/2018	5/21/2018	5/21/2018	5/21/2018	5/21/2018
					Location & Depth	SOIL-SC020 (8'-12')	SOIL-DUP-SC002	SOIL-SC021 (8'-10')	SOIL-SC021A (8'-10')	SOIL-SC022 (8'-12')	SOIL-SC023 (12'-13')	SOIL-SC024 (8'-10')	SOIL-SC024A (8'-10')	SOIL-SC025 (8'-12')	SOIL-SC026 (7'-8')	SOIL-SC027 (8'-12')	SOIL-SC028 (8'-12')
Parameter	Part 375 Protection of Groundwater SCO	Part 375 Industrial SCO	Part 375 Comm. SCO	Units													
Perfluorobutanesulfonic acid (PFBS)	NS	NS	NS	ppb			NA	NA	NA	NA	NA	NA		NA	NA	
N-Methyl Perfluorooctanesulfonamidoa	NS	NS	NS	ppb			NA	NA	NA	NA	NA	NA		NA	NA	
Perfluorohexanesulfonic acid (PFHxS)	NS	NS	NS	ppb			NA	NA	NA	NA	NA	NA		NA	NA	
N-Ethyl Perfluorooctanesulfonamidoac	NS	NS	NS	ppb			NA	NA	NA	NA	NA	NA		NA	NA	
Perfluroheptanesulfonic Acid (PFHpS)	NS	NS	NS	ppb			NA	NA	NA	NA	NA	NA		NA	NA	
1H,1H,2H,2H-Perfluorodecanesulfonic	NS	NS	NS	ppb			NA	NA	NA	NA	NA	NA		NA	NA	
Perfluorododecanoic Acid (PFDoA)	NS	NS	NS	ppb			NA	NA	NA	NA	NA	NA		NA	NA	
Perfluorodecanoic acid (PFDA)	NS	NS	NS	ppb			NA	NA	NA	NA	NA	NA		NA	NA	

NOTES:
SCO - Soil Cleanup Objective
Blue Highlighted Cells Exceed Industrial SCOs
Yellow Highlighted Cells Exceed Commercial SCOs but are less than Industrial SCOs
Bold Cells Exceed Protection of Groundwater SCOs
Blank cells indicate parameters that were not detected
NS - No SCO Standard established under 6NYCRR Part 375
NA - Not Analyzed
J - Result is less than the RL but greater than or equal to the MDL and the concentr
P - The RPD between the results for the two columns exceeds the method-specified
I - The lower value for the two columns has been reported due to obvious interferer
B - Compound also detected in the method blank
vs - Reported analyte concentrations are below 0.2 ppm and may be bias
ppm- parts per million
ppb- parts per billion

Table 7
Summary of Calculated Vertical Hydraulic Gradients Former Oak Mitsui, 80 First Street Property

VERTICAL HYDRAULIC GRADIENTS					7-Jan-2020			
WELL DESIGNATION	SCREEN TOP ELEVATION (ft msl)	SCREEN BOTTOM ELEVATION (ft msl)	MIDSCREEN ELEVATION (ft msl)	VERTICAL DISTANCE (ft)	GROUND WATER ELEVATION (ft msl)	HEAD CHANGE (ft)	VERTICAL GRADIENT (ft/ft)	POTENTIAL FLOW DIRECTION
FS-MW-001A	417.38	412.38	414.88	24.64	416.34	3.01	0.122	DOWNWARD
FS-MW-008B	392.74	387.74	390.24		413.33			
FS-MW-002A	417.51	412.51	415.01	123.52	415.61	1.59	0.013	DOWNWARD
FS-MW-002C	296.49	286.49	291.49		414.02			
FS-MW-003A	415.10	410.10	412.60	74.80	413.81	0.97	0.013	DOWNWARD
FS-MW-003B	340.30	335.30	337.80		412.84			
FS-MW-005A	416.40	411.40	413.90	31.00	413.42	0.93	0.030	DOWNWARD
FS-MW-005B	385.40	380.40	382.90	37.10	412.49	0.01	0.0003	DOWNWARD
FS-MW-005C	348.30	343.30	345.80		412.48			
FS-MW-007A	416.80	406.80	411.80	40.00	413.45	1.28	0.032	DOWNWARD
FS-MW-007B	376.80	366.80	371.80	22.60	412.17	0.08	0.004	DOWNWARD
FS-MW-007C	351.70	346.70	349.20		412.09			
FS-MW-3	419.50	409.50	414.50	83.31	414.28	-1.42	-0.017	UPWARD
FS-MW-009C	333.69	328.69	331.19		415.70			
FS-MW-012A	417.20	412.20	414.70	32.70	412.18	0.06	0.002	DOWNWARD
FS-MW-012B	387.00	377.00	382.00	17.60	412.12	0.27	0.015	DOWNWARD
FS-MW-012C	366.90	361.90	364.40		411.85			
FS-MW-013A	415.40	410.40	412.90	14.80	413.24	0.90	0.061	DOWNWARD
FS-MW-013B	400.60	395.60	398.10		412.34			

Notes:
msl - mean sea level
ft - feet

Table 8
Analytical Results for PFAS, Total Organicn Carbon and pH for Groundwater APS Samples
Former Oak-Mitsui - First Street

	Location ID	FS-APS-001	FS-APS-002	FS-APS-003	FS-APS-003	FS-APS-003	FS-APS-003	FS-APS-004	FS-APS-004	FS-APS-005	FS-APS-005	FS-APS-005	FS-APS-005	FS-APS-006
	Sample ID	FS-APS-001 (15)(10302018)	FS-APS-002 (13.9)(10302018)	FS-APS-003 (14)(10312018)	FS-APS-DUP1 (10312018)	FS-APS-003 (86.15)(11012018)	FS-APS-003 (98.9) (11012018)	FS-APS-004 (14.3)(11052018)	FS-APS-004 (86.1) (11062018)	FS-APS-005 (14.7) (11062018)	FS-APS-005(43.3)(11072018)	FS-APS-005(83.1)(11082018)	FS-APS-DUP2(11082018)	FS-APS-006 (14.5)(10312018)
	Sample Date	10/30/2018	10/30/2018	10/31/2018	10/31/2018	11/1/2018	11/1/2018	11/5/2018	11/6/2018	11/6/2018	11/7/2018	11/8/2018	11/8/2018	10/31/2018
	Sample Type	N	N	N	FD	N	N	N	N	N	N	N	FD	N
	Validated - Y/N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
	Depth (ft)	15	13.9	14	14	86.15	98.9	14.3	86.1	14.7	43.3	83.1	83.1	14.5
Analyte	Unit													
Per- and Polyfluoroalkyl Substances by USEPA Method 537 Modified														
NEtFOSAA	ng/l	2 U	1.8 U	1.7 U	1.7 U	1.7 U	1.8 U	1.9 U	1.8 U	1.9 U	1.8 U	1.9 U	1.8 U	1.7 U
NMeFOSAA	ng/l	3.2 U	3 U	2.7 U	2.8 U	2.8 U	3 U	3.1 U	2.9 U	3 U	2.9 U	3 U	3 U	2.7 U
Perfluorobutanesulfonic acid (PFBS)	ng/l	**6**	**14**	**13**	**13**	**0.42 J**	0.19 U	**18**	**0.6 J**	**8.8**	**0.6 J**	**0.87 J**	**0.79 J**	**6.3**
Perfluorobutanoic Acid	ng/l	**21**	**8.2**	**8.3**	**7.7**	**9**	**9.5**	46 U	**9.4**	**29**	**9.1**	**7.1**	**7.2**	**13**
Perfluorodecane Sulfonic Acid	ng/l	0.33 U	0.31 U	0.28 U	0.29 U	0.29 U	0.31 U	0.32 U	0.3 U	0.31 U	0.3 U	0.31 U	0.31 U	0.28 U
Perfluorodecanoic acid (PFDA)	ng/l	0.32 U	0.3 U	0.27 U	**0.3 J**	0.28 U	0.3 U	0.31 U	0.29 U	0.3 U	0.29 U	0.3 U	0.3 U	**0.47 J**
Perfluorododecanoic acid (PFDoA)	ng/l	0.57 U	0.53 U	0.48 U	0.5 U	0.49 U	0.53 U	0.54 U	0.51 U	0.54 U	0.52 U	0.54 U	0.53 U	0.48 U
Perfluoroheptane Sulfonate (PFHPS)	ng/l	0.2 U	**0.26 J**	0.17 U	0.17 U	0.17 U	0.18 U	0.19 U	0.18 U	**0.24 J**	0.18 U	0.19 U	0.18 U	0.17 U
Perfluoroheptanoic acid (PFHpA)	ng/l	**20**	**19**	**19**	**18**	**130**	**39**	**200**	**73**	**21**	**110**	**62**	**60**	**27**
Perfluorohexanesulfonic acid (PFHxS)	ng/l	**2.4**	**2**	**2.2**	**2.4**	0.15 U	0.38 U	2.6 U	0.65 U	2.9 U	**0.65 J**	0.76 U	0.84 U	**12**
Perfluorohexanoic acid (PFHxA)	ng/l	**20**	**18**	**18**	**16**	**130**	**99**	**110**	**93**	**28**	**100**	**63**	**67**	**26**
Perfluorononanoic acid (PFNA)	ng/l	**1.1 J**	**1.8 J**	**1.8**	**1.7 J**	0.24 U	0.26 U	**1.4 J**	**0.36 J**	**0.9 J**	0.25 U	**0.27 J**	0.26 U	**2.4**
Perfluorooctane Sulfonamide (FOSA)	ng/l	0.36 U	0.34 U	0.31 U	0.32 U	0.31 U	0.33 U	0.35 U	0.32 U	0.34 U	0.33 U	0.34 U	0.34 U	0.31 U
Perfluorooctanesulfonic acid (PFOS)	ng/l	**4.6**	**10**	**10**	**10**	0.48 U	0.52 U	**6.8**	0.5 U	**12**	0.51 U	0.53 U	0.52 U	**9.1**
Perfluorooctanoic acid (PFOA)	ng/l	**1200 J**	**990 J**	**950 J**	**940 J**	**1700 J**	**590**	**780 J**	**1400 J**	**630 J**	**2500 J**	**1500 J**	**1500 J**	**850 J**
Perfluoropentanoic Acid (PFPeA)	ng/l	**13**	**14**	**14**	**13**	**22**	**21**	**72**	**19**	**23**	**20**	**13**	**13**	**23**
Perfluorotetradecanoic acid (PFTA)	ng/l	0.3 U	0.28 U	0.26 U	0.27 U	0.26 U	0.28 U	0.29 U	**0.3 J**	**0.29 J**	**0.44 J**	0.28 U	0.28 U	0.25 U
Perfluorotridecanoic Acid (PFTriA)	ng/l	1.3 U	1.2 U	1.1 U	1.2 U	1.2 U	1.2 U	1.3 U	1.2 U	1.3 U	1.2 U	1.3 U	1.2 U	1.1 U
Perfluoroundecanoic Acid (PFUnA)	ng/l	1.1 U	1.1 U	0.97 U	1 U	0.98 U	1.1 U	1.1 U	1 U	1.1 U	1 U	1.1 U	1.1 U	0.97 U
SODIUM 1H,1H,2H,2H-PERFLUORODECANE SULFONATE (8:2)	ng/l	2.1 U	1.9 U	1.8 U	1.8 U	1.8 U	1.9 U	2 U	1.9 U	2 U	1.9 U	2 U	1.9 U	1.8 U
SODIUM 1H,1H,2H,2H-PERFLUOROOCTANE SULFONATE (6:2)	ng/l	2.1 U	1.9 U	1.8 U	1.8 U	1.8 U	1.9 U	**2.2 J**	1.9 U	2 U	1.9 U	2 U	1.9 U	1.8 U
Total Organic Carbon by Lloyd Kahn Method														
Total Organic Carbon	mg/l	**3.2**	**1.7**	**1.1**	**1.2**	**0.44 J**	1 U	**3.2 J**	**0.62 J**	**2.4**	**0.58 J**	**0.7 J**	**0.62 J**	**1.4**
pH By Standard Method 9040														
pH	pH units	**5.47**	**7.98**	**7.06**	**7.16**	**7.93**	**7.9**	**5.33**	**8.19**	**7.69**	**8.01**	**8.22**	**7.93**	**6.93**

	Location ID	FS-APS-006	FS-APS-006	FS-APS-007	FS-APS-007	FS-APS-007	FS-APS-008	FS-APS-008	FS-APS-008	FS-APS-009	FS-APS-010	FS-APS-011	FS-APS-011
	Sample ID	FS-APS-006 (57.9)(10312018)	FS-APS-006 (77.4) (11012018)	FS-APS-007 (14.5) (11012018)	FS-APS-007 (32.7)(11022018)	FS-APS-007 (74.6)(11052018)	FS-APS-008 (14.9) (11022018)	FS-APS-008 (36.9)(11022018)	FS-APS-008 (43.2)(11052018)	FS-APS-009 (14.5) (11062018)	FS-APS-010(14.6)(11082018)	FS-APS-011(11.9)(11082018)	FS-APS-011(22.9)(11092018)
	Sample Date	10/31/2018	11/1/2018	11/1/2018	11/2/2018	11/5/2018	11/2/2018	11/2/2018	11/5/2018	11/6/2018	11/8/2018	11/8/2018	11/9/2018
	Sample Type	N	N	N	N	N	N	N	N	N	N	N	N
	Validated - Y/N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
	Depth (ft)	57.9	77.4	14.5	32.7	74.6	14.9	36.9	43.2	14.5	14.6	11.9	22.9
Analyte	Unit												
Per- and Polyfluoroalkyl Substances by USEPA Method 537 Modified													
NEtFOSAA	ng/l	1.6 U	1.9 U	1.9 U	1.7 U	1.9 U	1.9 U	1.7 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U
NMeFOSAA	ng/l	2.7 U	3.1 U	3.1 U	2.8 U	3.1 U	3.1 U	2.8 U	2.9 U	2.9 U	3 U	3 U	3 U
Perfluorobutanesulfonic acid (PFBS)	ng/l	**0.29 J**	0.2 U	**9.2**	0.18 U	**0.54 J**	**3.7**	**1.8**	**1.8**	**6.4**	**19**	**2.6**	**4.7**
Perfluorobutanoic Acid	ng/l	**8.1**	**8.2**	12 U	**2.7**	**9.1**	**4.8**	**4.7**	**5.5**	**4.4**	**6**	**4.6**	**4.6**
Perfluorodecane Sulfonic Acid	ng/l	**0.39 J**	0.32 U	0.32 U	0.29 U	0.32 U	0.32 U	0.29 U	0.3 U	0.3 U	0.31 U	0.31 U	0.3 U
Perfluorodecanoic acid (PFDA)	ng/l	0.27 U	0.31 U	**0.44 J**	0.28 U	0.31 U	0.31 U	0.28 U	0.29 U	0.29 U	**0.77 J**	**0.37 J**	0.3 U
Perfluorododecanoic acid (PFDoA)	ng/l	**0.88 J**	0.55 U	0.55 U	0.5 U	0.54 U	0.55 U	0.5 U	0.51 U	0.52 U	0.53 U	0.53 U	0.52 U
Perfluoroheptane Sulfonate (PFHPS)	ng/l	0.16 U	0.19 U	**0.27 J**	0.17 U	0.19 U	0.19 U	0.17 U	0.18 U	0.18 U	**0.27 J**	0.18 U	0.18 U
Perfluoroheptanoic acid (PFHpA)	ng/l	**70**	**66**	**33**	**0.95 J**	**41**	**30**	**35**	**42**	**11**	**12**	**5.5**	**21**
Perfluorohexanesulfonic acid (PFHxS)	ng/l	**0.86 J**	0.65 U	**10**	0.15 U	0.92 U	**2.1**	**1.7 J**	1.7 U	1.4 U	2.5 U	1.5 U	2.1 U
Perfluorohexanoic acid (PFHxA)	ng/l	**97**	**100**	**26**	**3**	**58**	**17**	**22**	**26**	**9.8**	**11**	**4.6**	**14**
Perfluorononanoic acid (PFNA)	ng/l	0.23 U	0.27 U	**2.4**	0.25 U	0.27 U	**1.1 J**	**1.5 J**	**2**	**1.1 J**	**1.5 J**	**0.43 J**	**0.37 J**
Perfluorooctane Sulfonamide (FOSA)	ng/l	**0.7 J**	0.35 U	0.35 U	0.32 U	0.35 U	0.35 U	0.32 U	0.32 U	**0.61 J**	0.34 U	0.34 U	0.33 U
Perfluorooctanesulfonic acid (PFOS)	ng/l	**2.4**	**1.6 J**	**10**	0.49 U	**0.88 J**	**8.4**	0.49 U	**0.85 J**	**8.8**	**12**	**6.3**	**0.72 J**
Perfluorooctanoic acid (PFOA)	ng/l	**1100 J**	**840 J**	**990 J**	**14**	**380**	**810 J**	**2500 J**	**2200 J**	**580 J**	**550 J**	**250**	**860 J**
Perfluoropentanoic Acid (PFPeA)	ng/l	**18**	**18**	**20**	**2.2**	**15**	**7.2**	**7.1**	**7.4**	**6.6**	**8.2**	**2.3**	**5.3**
Perfluorotetradecanoic acid (PFTA)	ng/l	**1.8**	0.29 U	0.29 U	0.26 U	0.29 U	0.29 U	0.26 U	0.27 U	0.27 U	0.28 U	0.28 U	0.28 U
Perfluorotridecanoic Acid (PFTriA)	ng/l	**1.3 J**	1.3 U	1.3 U	1.2 U	1.3 U	1.3 U	1.2 U	1.2 U	1.2 U	1.2 U	1.3 U	1.2 U
Perfluoroundecanoic Acid (PFUnA)	ng/l	0.95 U	1.1 U	1.1 U	1 U	1.1 U	1.1 U	1 U	1 U	1 U	1.1 U	1.1 U	1 U
SODIUM 1H,1H,2H,2H-PERFLUORODECANE SULFONATE (8:2)	ng/l	1.7 U	2 U	2 U	1.8 U	2 U	2 U	1.8 U	1.8 U	1.9 U	1.9 U	1.9 U	1.9 U
SODIUM 1H,1H,2H,2H-PERFLUOROOCTANE SULFONATE (6:2)	ng/l	1.7 U	2 U	2 U	1.8 U	2 U	2 U	1.8 U	1.8 U	1.9 U	1.9 U	1.9 U	1.9 U
Total Organic Carbon by Lloyd Kahn Method													
Total Organic Carbon	mg/l	**0.47 J**	1 U	**1.4 J**	1 U	**1.1 J**	**0.53 J**	1 U	**1.3 J**	**1.3**	**1.2**	**0.78 J**	**0.47 J**
pH By Standard Method 9040													
pH	pH units	**7.79**	**7.81**	**7.01**	**8**	**7.7**	**6.85**	**7.75**	**7.69**	**8.02**	**7.07**	**8**	**8.07**

Notes and Abbreviations
ng/L - nanograms per liter
mg/L - milligrams per liter
U - Compound not detected
J - Estimated value
N - Primary sample
FD - Field duplicate sample
na - Sample not analyzed for this parameter
Bold value indicates detected value

Table 9
Analytical Results for PFAS Total Organicn Carbon, and pH for Groundwater Samples from Monitoring Wells
Former Oak-Mitsui - First Street

	Location ID	FS-MW-001A	FS-MW-002A	FS-MW-002A	FS-MW-002C	FS-MW-003A	FS-MW-003B	FS-MW-005A	FS-MW-005B	FS-MW-005C	FS-MW-007A	FS-MW-007B	FS-MW-007C
	Sample ID	FS-MW-001A (14.5)-07252019	DUP-07242019	FS-MW-002A (11.5)-07242019	FS-MW-002C (135)-07242019	FS-MW-003A (14.5)-07242019	FS-MW-003B (89.5)-07252019	FS-MW-005A (14.5)-07242019	FS-MW-005B (45.5)-07242019	FS-MW-005C (82.5)-07242019	FS-MW-007A (15)(07232019)	FS-MW-007B (55)-07242019	FS-MW-007C (77.5)-07242019
	Sample Date	7/25/2019	7/24/2019	7/24/2019	7/24/2019	7/24/2019	7/25/2019	7/24/2019	7/24/2019	7/24/2019	7/23/2019	7/24/2019	7/24/2019
	Sample Type	N	FD	N	N	N	N	N	N	N	N	N	N
	Validated - Y/N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
	START_DEPTH	14.5	11.5	11.5	135	14.5	89.5	14.5	45.5	82.5	15	55	77.5
Analyte	Unit												
Per- and Polyfluoroalkyl Substances by USEPA Method 537 Modified													
NEtFOSAA	ng/l	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.7 U	1.8 U	1.8 U	1.8 U	1.7 U	1.7 U	1.8 U
NMeFOSAA	ng/l	2.9 U	3 U	3 U	3 U	2.9 U	2.7 U	3 U	2.9 U	2.9 U	2.9 U	2.8 U	3 U
Perfluorobutanesulfonic acid (PFBS)	ng/l	**3.7**	**8**	**7.8**	0.19 U	**7.2**	**0.37 J**	**7.9**	**0.65 J**	**0.68 J**	**3.7**	**0.35 J**	**0.31 J**
Perfluorobutanoic Acid	ng/l	**6**	**6.4**	**7.7**	**0.95 J**	**6.5**	**8.5**	**11**	**8.6**	**7.4**	**9.5**	**8.3**	**11**
Perfluorodecane Sulfonic Acid	ng/l	0.3 U	0.31 U	0.31 U	0.31 U	0.3 U	0.28 U	0.3 U	0.3 U	0.3 U	0.29 U	0.29 U	0.31 U
Perfluorodecanoic acid (PFDA)	ng/l	0.29 U	0.3 U	0.3 U	0.3 U	0.29 U	0.27 U	0.3 U	0.29 U	0.29 U	0.29 U	0.28 U	**0.42 J**
Perfluorododecanoic acid (PFDoA)	ng/l	0.51 U	0.53 U	0.53 U	0.53 U	0.52 U	0.48 U	0.52 U	0.51 U	0.51 U	0.51 U	0.5 U	0.53 U
Perfluoroheptane Sulfonate (PFHPS)	ng/l	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.17 U	0.18 U	0.18 U	0.18 U	0.17 U	0.17 U	0.18 U
Perfluoroheptanoic acid (PFHpA)	ng/l	**16**	**21**	**22**	0.24 U	**20**	**130**	**24**	**91**	**57**	**21**	**100**	**27**
Perfluorohexanesulfonic acid (PFHxS)	ng/l	2.2 U	1.6 U	1.6 U	0.31 U	1.4 U	0.48 U	2 U	0.65 U	0.8 U	**8**	0.54 U	0.59 U
Perfluorohexanoic acid (PFHxA)	ng/l	**13**	**19**	**18**	0.56 U	**16**	**120**	**21**	**90**	**67**	**13**	**100**	**66**
Perfluorononanoic acid (PFNA)	ng/l	**1.4 J**	**1.7 J**	**1.5 J**	0.26 U	**1.3 J**	0.24 U	**1.2 J**	**0.42 J**	0.25 U	**1.8**	0.25 U	**0.52 J**
Perfluorooctane Sulfonamide (FOSA)	ng/l	0.33 U	0.34 U	0.34 U	0.34 U	0.33 U	0.31 U	0.33 U	0.32 U	0.32 U	0.32 U	0.32 U	0.34 U
Perfluorooctanesulfonic acid (PFOS)	ng/l	**5.1**	**7.1**	**7.2**	0.52 U	7.2	0.48 U	**8.5**	0.5 U	0.5 U	**4.7**	**0.49 J**	**0.99 J**
Perfluorooctanoic acid (PFOA)	ng/l	**980**	**840 J**	**850 J**	0.82 U	**830 J**	**2200**	**650 J**	**2200 J**	**1300 J**	**720**	**2000 J**	**450 J**
Perfluoropentanoic Acid (PFPeA)	ng/l	**6.5**	**12**	**11**	0.47 U	**11**	**17**	**9**	**15**	**12**	**6.8**	**17**	**17**
Perfluorotetradecanoic acid (PFTA)	ng/l	0.27 U	0.28 U	0.28 U	0.28 U	0.27 U	0.26 U	0.28 U	0.27 U	0.27 U	0.27 U	0.27 U	0.28 U
Perfluorotridecanoic Acid (PFTriA)	ng/l	1.2 U	1.2 U	1.2 U	1.3 U	1.2 U	1.1 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.3 U
Perfluoroundecanoic Acid (PFUnA)	ng/l	1 U	1.1 U	1.1 UJ	1.1 U	1 U	0.97 U	1 UJ	1 U	1 U	1 U	1 U	1.1 U
SODIUM 1H,1H,2H,2H-PERFLUORODECANE SULFONATE (8:2)	ng/l	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.8 U	1.9 U	1.8 U	1.8 U	1.8 U	1.8 U	1.9 U
SODIUM 1H,1H,2H,2H-PERFLUOROOCTANE SULFONATE (6:2)	ng/l	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.8 U	1.9 U	1.8 U	1.8 U	1.8 U	1.8 U	1.9 U
Total Organic Carbon by Lloyd Kahn Method													
Total Organic Carbon	mg/l	**2.1**	**0.84 J**	**0.82 J**	**1**	**1**	**1 U**	**1.1**	1 U	1 U	**2.4 J**	1 U	**0.66 J**
pH By Standard Method 9040													
pH	pH units	**7.36**	**7.33**	**7.35**	**7.69**	**7.24**	**7.83**	**7.09**	**7.82**	**7.77**	**7.64**	**7.86**	**7.88**

	Location ID	FS-MW-008B	FS-MW-008B	FS-MW-009C	FS-MW-011A	FS-MW-012A	FS-MW-012B	FS-MW-012C	FS-MW-013A	FS-MW-013B	FS-MW-1	FS-MW-3	FS-MW-4
	Sample ID	DUP-07232019	FS-MW-008B (37.5)-07232019	FS-MW-009C (97.3)(07232019)	FS-MW-011A (18.5)-07242019	FS-MW-012A (12.5)(07232019)	FS-MW-12B (45)(07232019)	FS-MW-012C (62.5)(07232019)	FS-MW-13A (15.5)-07222019	FS-MW-13B (30.5)-07222019	FS-MW-1 (17.75)(07232019)	FS-MW-3 (14.25)(07232019)	FS-MW-4 (13.57)(07252019
	Sample Date	7/23/2019	7/23/2019	7/23/2019	7/24/2019	7/23/2019	7/23/2019	7/23/2019	7/22/2019	7/22/2019	7/23/2019	7/23/2019	7/25/2019
	Sample Type	FD	N	N	N	N	N	N	N	N	N	N	N
	Validated - Y/N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
	START_DEPTH	37.5	37.5	97.3	18.5	12.5	45	62.5	15.5	30.5	17.75	14.25	13.57
Analyte	Unit												
Per- and Polyfluoroalkyl Substances by USEPA Method 537 Modified													
NEtFOSAA	ng/l	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.7 U	1.7 U	1.8 U	1.8 U	1.7 U
NMeFOSAA	ng/l	2.9 U	2.9 U	3 U	3 U	2.9 U	2.9 U	2.9 U	2.7 U	2.8 U	2.9 U	2.9 U	2.8 U
Perfluorobutanesulfonic acid (PFBS)	ng/l	**1.6 J**	**1.7 J**	**0.3 J**	**10**	**5.3**	**5.5**	**0.54 J**	**7.3**	**5.8**	**7.3**	**7.2**	**12**
Perfluorobutanoic Acid	ng/l	**4.7**	**4.7**	**7.8**	**4.1**	**8**	**9.9**	**9.3**	**8.7**	**6.7**	**8.8**	**6**	**5.3**
Perfluorodecane Sulfonic Acid	ng/l	0.3 U	0.3 U	0.31 U	0.31 U	0.3 U	0.3 U	0.3 U	0.28 U	0.29 U	0.3 U	0.3 U	0.29 U
Perfluorodecanoic acid (PFDA)	ng/l	0.29 U	0.29 U	0.3 U	0.3 U	**0.56 J**	0.29 U	0.29 U	0.27 U	0.28 U	0.29 U	0.29 U	0.28 U
Perfluorododecanoic acid (PFDoA)	ng/l	0.51 U	0.51 U	0.53 U	0.53 U	0.52 U	0.52 U	0.51 U	0.49 U	0.5 U	0.51 U	0.51 U	0.5 U
Perfluoroheptane Sulfonate (PFHPS)	ng/l	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.17 U	0.17 U	0.18 U	**0.18 J**	0.17 U
Perfluoroheptanoic acid (PFHpA)	ng/l	**35**	**35**	**99**	**15**	**29**	**35**	**26**	**51**	**31**	**44**	**17**	**14**
Perfluorohexanesulfonic acid (PFHxS)	ng/l	1.4 U	1.4 U	0.46 U	3	1.6 U	2.1 U	0.86 U	3.2 U	1.5 U	2.2 U	1.7 U	1.8 U
Perfluorohexanoic acid (PFHxA)	ng/l	**23**	**22**	**89**	**14**	**23**	**30**	**65**	**36**	**24**	**30**	**16**	**13**
Perfluorononanoic acid (PFNA)	ng/l	**1.4 J**	**1.4 J**	0.26 U	**0.47 J**	**2**	**1.8 J**	0.25 U	**0.96 J**	**0.51 J**	**1 J**	**1.1 J**	**1 J**
Perfluorooctane Sulfonamide (FOSA)	ng/l	0.33 U	0.32 U	0.34 U	0.34 U	0.33 U	0.33 U	0.32 U	0.31 U	0.32 U	0.33 U	0.33 U	0.32 U
Perfluorooctanesulfonic acid (PFOS)	ng/l	**0.73 J**	**0.79 J**	0.52 UJ	**1.8 J**	**11**	**8.2**	**1.3 J**	**5.6 J**	**1.1 J**	**6.6 J**	**8.6**	**8.6**
Perfluorooctanoic acid (PFOA)	ng/l	**2100**	**2200**	**1900**	**360**	**770**	**820**	**420**	**1100**	**780**	**1200**	**800**	**550**
Perfluoropentanoic Acid (PFPeA)	ng/l	**6.4**	**6.2**	**15**	**4.1**	**14**	**17**	**16**	**11**	7.6 U	**14**	**14**	**8.2**
Perfluorotetradecanoic acid (PFTA)	ng/l	0.27 U	0.27 U	0.28 U	0.28 U	0.27 U	0.27 U	0.27 U	**0.75 J**	**0.26 J**	0.27 U	0.27 U	0.26 U
Perfluorotridecanoic Acid (PFTriA)	ng/l	1.2 U	1.2 U	1.3 U	1.3 U	1.2 U	1.2 U	1.2 U	1.1 U	1.2 U	1.2 U	1.2 U	1.2 U
Perfluoroundecanoic Acid (PFUnA)	ng/l	1 U	1 U	1.1 U	1.1 U	1 U	1 U	1 U	0.97 U	1 U	1 U	1 U	0.99 U
SODIUM 1H,1H,2H,2H-PERFLUORODECANE SULFONATE (8:2)	ng/l	1.9 U	1.8 U	1.9 U	1.9 U	1.9 U	1.9 U	1.8 U	1.8 U	1.8 U	1.9 U	1.9 U	1.8 U
SODIUM 1H,1H,2H,2H-PERFLUOROOCTANE SULFONATE (6:2)	ng/l	1.9 U	1.8 U	1.9 U	1.9 U	1.9 U	1.9 U	1.8 U	1.8 U	1.8 U	1.9 U	1.9 U	1.8 U
Total Organic Carbon by Lloyd Kahn Method													
Total Organic Carbon	mg/l	**0.47 J**	**0.54 J**	**1 U**	**0.59 J**	**0.83 J**	**1.4 J**	1 U	**0.86 J**	**0.79 J**	**1.2 J**	**0.72 J**	**0.7 J**
pH By Standard Method 9040													
pH	pH units	**7.71**	**7.73**	**7.87**	**7.74**	**6.54**	**7.28**	**7.75**	**7.07**	**7.48**	**7.34**	**7.55**	**7.39**

Notes and Abbreviations
ng/L - nanograms per liter
mg/L - milligrams per liter
U - Compound not detected
J - Estimated value
N - Primary sample
FD - Field duplicate sample
na - Sample not analyzed for this parameter
Bold value indicates detected value

Table 10 – Analytical Results for Other Parameters from Groundwater APS Samples
Former Oak-Mitsui - First Street

Analyte	Unit	NYDEC TOGS111 GA GUIDANCE	NYDEC TOGS111 GA STANDARD	Location ID / Sample ID / Sample Date / Sample Type / Validated - Y/N / Depth																								
				FS-APS-001 (10302018) 10/30/2018 N Y 15	FS-APS-002 (13.9) (10302018) 10/30/2018 N Y 13.9	FS-APS-003 (14) (10312018) 10/31/2018 N Y 14	FS-APS-DUP1 (10312018) 10/31/2018 FD Y 14	FS-APS-003 (86.15) (11012018) 11/1/2018 N Y 86.15	FS-APS-003 (98.9) (11012018) 11/1/2018 N Y 98.9	FS-APS-004 (14.3) (11052018) 11/5/2018 N Y 14.3	FS-APS-004 (86.1) (11062018) 11/6/2018 N Y 86.1	FS-APS-005 (14.7) (11062018) 11/6/2018 N Y 14.7	FS-APS-005 (43.3) (11072018) 11/7/2018 N Y 43.3	FS-APS-005 (83.1) (11082018) 11/8/2018 N Y 83.1	FS-APS-DUP2 (11082018) 11/8/2018 FD Y 83.1	FS-APS-006 (14.5) (10312018) 10/31/2018 N Y 14.5	FS-APS-006 (57.9) (10312018) 10/31/2018 N Y 57.9	FS-APS-006 (77.4) (11012018) 11/1/2018 N Y 77.4	FS-APS-007 (14.5) (11012018) 11/1/2018 N Y 14.5	FS-APS-007 (32.7) (11022018) 11/2/2018 N Y 32.7	FS-APS-007 (74.6) (11052018) 11/5/2018 N Y 74.6	FS-APS-008 (14.9) (11022018) 11/2/2018 N Y 14.9	FS-APS-008 (36.9) (11022018) 11/2/2018 N Y 36.9	FS-APS-008 (43.2) (11052018) 11/5/2018 N Y 43.2	FS-APS-009 (14.5) (11062018) 11/6/2018 N Y 14.5	FS-APS-009 (106.6) (11072018) 11/7/2018 N Y 106.6	FS-APS-010 (14.6) (11082018) 11/8/2018 N Y 14.6	FS-APS-011 (11.9) (11082018) 11/8/2018 N Y 11.9	FS-APS-011 (22.9) (11092018) 11/9/2018 N Y 22.9
Metals																												
Aluminum	mg/l	NS	NS	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	**0.23**	**0.79**	**0.12 J**	0.2 U	**0.41**	**0.33**	**0.38**	**0.29**	**12.8**	0.2 U	**0.66**	**2.3**	**0.36**	**0.14 J**	**0.15 J**	**0.22**	**0.28**	na	**1**	**0.24**	0.2 U
Antimony	mg/l	0.003	NS	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	na	0.02 U	0.02 U	0.02 U
Arsenic	mg/l	0.025	NS	0.015 U	0.015 U	0.015 U	0.015 U	0.015 U	0.015 U	0.015 U	0.015 U	0.015 U	0.015 U	0.015 U	0.015 U	0.015 U	**0.0086 J**	0.015 U	0.015 U	0.015 U	0.015 U	0.015 U	0.015 U	0.015 U	0.015 U	na	0.015 U	0.015 U	0.015 U
Barium	mg/l	1	NS	**0.22**	**0.075**	**0.067**	**0.071**	**0.46**	**0.4**	**0.029**	**0.071**	**0.03**	**0.079**	**0.076**	**0.076**	**0.11**	**0.75**	**0.099**	**0.16**	**0.31**	**0.077**	**0.042**	**0.067**	**0.067**	**0.029**	na	**0.06**	**0.051**	**0.1**
Beryllium	mg/l	NS	0.003	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	**0.00037 J**	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	**0.0015 J**	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	na	0.002 U	0.002 U	0.002 U
Cadmium	mg/l	**0.005**	NS	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	**0.041**	0.002 U	**0.0035**	0.002 U	0.002 U	0.002 U	0.002 U	**0.0013 J**	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	**0.0043**	**0.0048**	0.002 U	na	0.002 U	0.002 U	0.002 U
Calcium	mg/l	NS	NS	**98.1**	**60.2**	**60.7**	**63.8**	**81**	**79.5**	**128**	**88**	**114**	**78.6**	**93.9**	**93.4**	**94.4**	**203**	**82**	**84.7**	**70.2**	**95.8**	**63**	**101**	**102**	**50.2**	na	**71.4**	**84**	**81**
Chromium, Total	mg/l	0.05	NS	0.004 U	0.004 U	**0.0019 J**	0.004 U	0.004 U	0.004 U	**0.0026 J**	0.004 U	0.004 U	0.004 U	0.004 U	**0.0067**	0.004 U	**0.014**	0.004 U	**0.0044**	**0.0036 J**	0.004 U	**0.0014 J**	0.004 U	0.004 U	0.004 U	na	**0.003 J**	**0.0017 J**	0.004 U
Cobalt	mg/l	NS	NS	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	**0.025**	0.004 U	**0.0016 J**	0.004 U	0.004 U	0.004 U	0.004 U	**0.021**	0.004 U	**0.00072 J**	**0.00093 J**	0.004 U	0.004 U	**0.0012 J**	**0.0015 J**	0.004 U	na	**0.001 J**	0.004 U	0.004 U
Copper	mg/l	**0.2**	NS	0.01 U	**0.18**	**0.11**	**0.12**	0.01 U	0.01 U	**58.3**	**0.014**	**0.72**	**0.003 J**	**0.019**	**0.12**	**0.0029 J**	**0.12**	**0.0017 J**	**0.011**	**0.0097 J**	0.01 U	**0.037**	**0.07**	**0.12**	**0.0028 J**	na	**0.041**	0.01 U	**0.0026 J**
Iron	mg/l	**0.3**	NS	**0.53**	**0.23**	**0.067**	**0.067**	0.18 U	**0.38**	**2.3**	**0.28**	**0.062**	**0.6**	**0.62**	**0.78**	0.4 U	**28.3**	**0.094**	**1.4**	**3.3**	**0.64**	**0.26**	**0.17**	**0.41**	**0.28**	na	**1.7**	**0.46**	**0.095**
Lead	mg/l	**0.025**	NS	0.01 U	**0.0083 J**	0.01 U	0.01 U	0.01 U	0.01 U	0.05 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	**0.041**	0.01 U	0.01 U	0.0034 J	0.01 U	**0.003 J**	0.01 U	0.01 U	0.01 U	na	0.01 U	0.01 U	0.01 U
Magnesium	mg/l	NS	**35**	**16.2**	**8.9**	**8.8**	**9.2**	**18.5**	**18.1**	**32.7**	**18.2**	**12.8**	**17.2**	**18.8**	**18.5**	**14.4**	**45.3**	**19.3**	**13.1**	**17**	**21.8**	**12.2**	**18.2**	**18.8**	**7.2**	na	**9.2**	**12.5**	**17.9**
Manganese	mg/l	**0.3**	NS	**0.81**	**0.046**	**0.017**	**0.011**	**0.41**	**0.4**	**2.1**	**0.66**	**0.15**	**0.52**	**0.83**	**0.81**	**0.071**	**3.1**	**0.66**	**0.41**	**0.51**	**0.76**	**0.014**	**0.73**	**0.73**	**0.012**	na	**0.12**	**0.024**	**0.37**
Mercury	mg/l		0.0007	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	**0.00012 J**	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	na	0.0002 U	0.0002 U	na
Nickel	mg/l	**0.1**	NS	0.01 U	**0.0043 J**	**0.0036 J**	**0.0036 J**	0.01 U	0.01 U	**0.2**	**0.0028 J**	**0.028**	0.01 U	**0.0025 J**	**0.0031 J**	0.01 U	**0.032**	**0.002 J**	**0.0037 J**	**0.0049 J**	0.01 U	**0.0016 J**	**0.0088 J**	**0.0095 J**	0.01 U	na	**0.0036 J**	0.01 U	0.01 U
Potassium	mg/l	NS	NS	**5.4**	**5.6**	**4.9**	**5.2**	**1.4**	**1.9**	**14.5**	**3.4**	**5.2**	**2.4**	**4.2**	**4.2**	**6.1**	**5.2**	**3.9**	**6.3**	**2.2**	**3.2**	**8.8**	**4.7**	**4.8**	**4.2**	na	**5.3**	**4**	**1.5**
Selenium	mg/l	0.01	NS	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	na	0.025 U	0.025 U	0.025 U
Silver	mg/l	0.05	NS	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U	na	0.006 U	0.006 U	0.006 U
Sodium	mg/l	**20**	NS	**105**	**176**	**168**	**176**	**51.3**	**45.7**	**171**	**72.5**	**153**	**57.9**	**88.9**	**89**	**91.3**	**41.4**	**90.1**	**141**	**32.5**	**81.1**	**107**	**106**	**106**	**105**	na	**147**	**25**	**56.2**
Thallium	mg/l	NS	0.0005	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	na	0.02 U	0.02 U	0.02 U
Vanadium	mg/l	NS	NS	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	**0.017**	0.005 U	0.005 U	0.0032 J	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	na	0.005 U	0.005 U	0.005 U
Zinc	mg/l	NS	2	**0.0021 J**	**0.23**	**0.018**	**0.018**	0.01 U	0.01 U	**1.3**	**0.0032 J**	**0.087**	**0.0026 J**	**0.0036 J**	**0.0031 J**	0.01 U	**0.16**	0.01 U	0.01 U	0.011 U	0.01 U	0.01 U	0.025 U	0.033 U	0.010 U	na	**0.0088 J**	**0.0025 J**	**0.0085 J**
Total Cyanide by USEPA Method 9012B																												
Cyanide	mg/l	NS	0.2	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	**0.016**	0.01 U	0.015 U	0.01 U	0.01 U	0.01 U	0.01 U	**0.019**	0.01 U	0.01 U	**0.0061 J**	**0.0055 J**	0.01 U	0.01 U	0.01 UJ	**0.0074 J**	0.01 U	na	0.01 U	**0.0054 J**	0.01 U
Weak Acid Dissociable Cyanide by Method SM4500																												
Weak Acid Dissociable Cyanide	mg/l	NS	NS	0.01 U	**0.014**	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	**0.0081 J**	0.022 U	0.01 U	0.01 U	0.01 U	0.01 U	na	0.01 U	0.01 U	0.01 U
Pesticides by USEPA Method 8081B																												
Aldrin	ug/l	NS	NS	0.05 U	na	0.052 U	0.05 U	0.05 U	0.05 U	na	0.057 U	0.066 U	0.054 U	0.05 U	0.052 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.052 U	0.05 U	0.054 U	na	0.052 U	0.052 U	0.052 U
Alpha Bhc (Alpha Hexachlorocyclohexane)	ug/l	NS	0.01	0.05 U	na	0.052 U	0.05 U	0.05 U	0.05 U	na	0.057 U	0.066 UJ	0.054 U	0.05 U	0.052 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.052 U	0.05 U	0.054 U	na	0.052 U	0.052 U	0.052 U
Alpha Endosulfan	ug/l	NS	NS	0.05 U	na	0.052 U	0.05 U	0.05 U	0.05 U	na	0.057 U	0.066 U	0.054 U	0.05 U	0.052 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.052 U	0.05 U	0.054 U	na	0.052 U	0.052 U	0.052 U
Beta Bhc (Beta Hexachlorocyclohexane)	ug/l	NS	0.04	0.05 U	na	0.052 U	0.05 U	0.05 U	0.05 U	na	0.057 U	0.066 U	0.054 U	0.05 U	0.052 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.052 U	0.05 U	0.054 U	na	0.052 U	0.052 U	0.052 U
Beta Endosulfan	ug/l	NS	NS	0.05 U	na	0.052 U	0.05 U	0.05 U	0.05 U	na	0.057 U	0.066 U	0.054 U	0.05 U	0.052 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.052 U	0.05 U	0.054 U	na	0.052 U	0.052 U	0.052 U
cis-Chlordane	ug/l	NS	NS	0.05 U	na	0.052 U	0.05 U	0.05 U	0.05 U	na	0.057 U	0.066 U	0.054 U	0.05 U	0.052 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.052 U	0.05 U	0.054 U	na	0.052 U	0.052 U	0.052 U
Delta BHC (Delta Hexachlorocyclohexane)	ug/l	NS	0.04	0.05 U	na	0.052 U	0.05 U	0.05 U	0.05 U	na	0.057 U	0.066 U	0.054 U	0.05 U	0.052 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.052 U	0.05 U	0.054 U	na	0.052 U	0.052 U	0.052 U
Dieldrin	ug/l	NS	0.004	0.05 U	na	0.052 U	0.05 U	0.05 U	0.05 U	na	0.057 U	0.066 U	0.054 U	0.05 U	0.052 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.052 U	0.05 U	0.054 U	na	0.052 U	0.052 U	0.052 U
Endosulfan Sulfate	ug/l	NS	NS	0.05 U	na	0.052 U	0.05 U	0.05 U	0.05 U	na	0.057 U	0.066 U	0.054 U	0.05 U	0.052 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.052 U	0.05 U	0.054 U	na	0.052 U	0.052 U	0.052 U
Endrin	ug/l	NS	0	0.05 U	na	0.052 U	0.05 U	0.05 U	0.05 U	na	0.057 U	0.066 U	0.054 U	0.05 U	0.052 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.052 U	0.05 U	0.054 U	na	0.052 U	0.052 U	0.052 U
Endrin Aldehyde	ug/l	NS	5	**0.016 J**	na	0.052 U	0.05 U	0.05 U	0.05 U	na	0.057 U	0.066 U	0.054 U	0.05 U	0.052 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.052 U	0.05 U	0.054 U	na	0.052 U	0.052 U	0.052 U
Endrin Ketone	ug/l	NS	5	0.05 U	na	0.052 U	0.05 U	0.05 U	0.05 U	na	0.057 U	0.066 U	0.054 U	0.05 U	0.052 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.052 U	0.05 U	0.054 U	na	0.052 U	0.052 U	0.052 U
Gamma Bhc (Lindane)	ug/l	NS	0.05	0.05 U	na	0.052 U	0.05 U	0.05 U	0.05 U	na	0.057 U	0.066 U	0.054 U	0.05 U	0.052 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.052 U	0.05 U	0.054 U	na	0.052 U	0.052 U	0.052 U
Heptachlor	ug/l	NS	0.04	0.05 U	na	0.052 U	0.05 U	0.05 U	0.05 U	na	0.057 U	0.066 UJ	0.054 U	0.05 U	0.052 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.052 U	0.05 U	0.054 U	na	0.052 U	0.052 U	0.052 U
Heptachlor Epoxide	ug/l	NS	0.03	0.05 U	na	0.052 U	0.05 U	0.05 U	0.05 U	na	0.057 U	0.066 U	0.054 U	0.05 U	0.052 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.052 U	0.05 U	0.054 U	na	0.052 U	0.052 U	0.052 U
Methoxychlor	ug/l	NS	35	0.05 U	na	0.052 U	0.05 U	0.05 U	0.05 U	na	0.057 U	0.066 U	0.054 U	0.05 U	0.052 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.052 U	0.05 U	0.054 U	na	0.052 U	0.052 U	0.052 U
P,P'-DDD	ug/l	NS	0.3	**0.011 J**	na	0.052 U	0.05 U	0.05 U	0.05 U	na	0.057 U	0.066 U	0.054 U	0.05 U	0.052 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.052 U	0.05 U	0.054 U	na	0.052 U	0.052 U	0.052 U
P,P'-DDE	ug/l	NS	0.2	0.05 U	na	0.052 U	0.05 U	0.05 U	0.05 U	na	0.057 U	0.066 U	0.054 U	0.05 U	0.052 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.052 U	0.05 U	0.054 U	na	0.052 U	0.052 U	0.052 U
P,P'-DDT	ug/l	NS	0.2	0.05 U	na	0.052 U	0.05 U	0.05 U	0.05 U	na	0.057 U	0.066 U	0.054 U	0.05 U	0.052 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.052 U	0.05 U	0.054 U	na	0.052 U	0.052 U	0.052 U
Toxaphene	ug/l	NS	0.06	0.5 U	na	0.52 U	0.5 U	0.5 U	0.5 U	na	0.57 U	0.66 U	0.54 U	0.5 U	0.52 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.52 U	0.5 U	0.54 U	na	0.52 U	0.52 U	0.52 U
trans-Chlordane	ug/l	NS	NS	0.05 U	na	0.052 U	0.05 U	0.05 U	0.05 U	na	0.057 U	0.066 U	0.054 U	0.05 U	**0.012 J**	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.052 U	0.05 U	0.054 U	na	0.052 U	0.052 U	0.052 U
Polychlorined Biphenyls (PCBs) by USEPA Method 8082A																												
PCB-1016 (Aroclor 1016)	ug/l	NS	0.09	0.5 U	na	0.5 U	0.5 U	0.5 U	0.52 U	na	0.5 U	0.52 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.52 U	0.5 U	0.5 U	0.52 U	0.5 U	0.5 U	0.5 U	0.52 U	na	0.5 U	0.5 U	0.5 U
PCB-1221 (Aroclor 1221)	ug/l	NS	0.09	0.5 U	na	0.5 U	0.5 U	0.5 U	0.52 U	na	0.5 U	0.52 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.52 U	0.5 U	0.5 U	0.52 U	0.5 U	0.5 U	0.5 U	0.52 U	na	0.5 U	0.5 U	0.5 U
PCB-1232 (Aroclor 1232)	ug/l	NS	0.09	0.5 U	na	0.5 U	0.5 U	0.5 U	0.52 U	na	0.5 U	0.52 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.52 U	0.5 U	0.5 U	0.52 U	0.5 U	0.5 U	0.5 U	0.52 U	na	0.5 U	0.5 U	0.5 U
PCB-1242 (Aroclor 1242)	ug/l	NS	0.09	0.5 U	na	0.5 U	0.5 U	0.5 U	0.52 U	na	0.5 U	0.52 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.52 U	0.5 U	0.5 U	0.52 U	0.5 U	0.5 U	0.5 U	0.52 U	na	0.5 U	0.5 U	0.5 U
PCB-1248 (Aroclor 1248)	ug/l	NS	0.09	0.5 U	na	0.5 U	0.5 U	0.5 U	0.52 U	na	0.5 U	0.52 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.52 U	0.5 U	0.5 U	0.52 U	0.5 U	0.5 U	0.5 U	0.52 U	na	0.5 U	0.5 U	0.5 U
PCB-1254 (Aroclor 1254)	ug/l	NS	0.09	0.5 U	na	0.5 U	0.5 U	0.5 U	0.52 U	na	0.5 U	0.52 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.52 U	0.5 U	0.5 U	0.52 U	0.5 U	0.5 U	0.5 U	0.52 U	na	0.5 U	0.5 U	0.5 U
PCB-1260 (Aroclor 1260)	ug/l	NS	0.09	0.5 U	na	0.5 U	0.5 U	0.5 U	0.52 U	na	0.5 U	0.52 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.52 U	0.5 U	0.5 U	0.52 U	0.5 U	0.5 U	0.5 U	0.52 U	na	0.5 U	0.5 U	0.5 U

Notes and Abbreviations
ng/L - nanograms per liter
mg/L - milligrams per liter
U - Compound not detected
J - Estimated value
N - Primary sample
FD - Field duplicate sample
na - Sample not analyzed for this parameter
NS - No standard

Bold value indicates detected value
NYSDEC TOGS111 - Standards listed are the New York State Department of Environmental Conservation (NYSDEC) Division
Shade cell indiicates exceedance of NYSGA Standard or Guidance

Table 10 – Analytical Results for Other Parameters from Groundwater APS Samples
Former Oak-Mitsui - First Street

Analyte	Unit	NYDEC TOGS111 GA GUIDANCE	NYDEC TOGS111 GA STANDARD	Location ID / Sample ID / Sample Date / Sample Type / Validated - Y/N / Depth																									
				FS-APS-001 FS-APS-001 (15) (10302018) 10/30/2018 N Y 15	FS-APS-002 FS-APS-002 (13.9) (10302018) 10/30/2018 N Y 13.9	FS-APS-003 FS-APS-003 (14) (10312018) 10/31/2018 N Y 14	FS-APS-003 FS-APS-DUP1 (10312018) 10/31/2018 FD Y 14	FS-APS-003 FS-APS-003 (86.15) (11012018) 11/1/2018 N Y 86.15	FS-APS-003 FS-APS-003 (98.9) (11012018) 11/1/2018 N Y 98.9	FS-APS-004 FS-APS-004 (14.3) (11052018) 11/5/2018 N Y 14.3	FS-APS-004 FS-APS-004 (86.1) (11062018) 11/6/2018 N Y 86.1	FS-APS-005 FS-APS-005 (14.7) (11062018) 11/6/2018 N Y 14.7	FS-APS-005 FS-APS-005 (43.3) (11072018) 11/7/2018 N Y 43.3	FS-APS-005 FS-APS-005 (83.1) (11082018) 11/8/2018 N Y 83.1	FS-APS-005 FS-APS-DUP2 (11082018) 11/8/2018 FD Y 83.1	FS-APS-006 FS-APS-006 (14.5) (10312018) 10/31/2018 N Y 14.5	FS-APS-006 FS-APS-006 (57.9) (10312018) 10/31/2018 N Y 57.9	FS-APS-006 FS-APS-006 (77.4) (11012018) 11/1/2018 N Y 77.4	FS-APS-007 FS-APS-007 (14.5) (11012018) 11/1/2018 N Y 14.5	FS-APS-007 FS-APS-007 (32.7) (11022018) 11/2/2018 N Y 32.7	FS-APS-007 FS-APS-007 (74.6) (11052018) 11/5/2018 N Y 74.6	FS-APS-008 FS-APS-008 (14.9) (11022018) 11/2/2018 N Y 14.9	FS-APS-008 FS-APS-008 (36.9) (11022018) 11/2/2018 N Y 36.9	FS-APS-008 FS-APS-008 (43.2) (11052018) 11/5/2018 N Y 43.2	FS-APS-009 FS-APS-009 (14.5) (11062018) 11/6/2018 N Y 14.5	FS-APS-009 FS-APS-009 (106.6) (11072018) 11/7/2018 N Y 106.6	FS-APS-010 FS-APS-010 (14.6) (11082018) 11/8/2018 N Y 14.6	FS-APS-011 FS-APS-011 (11.9) (11082018) 11/8/2018 N Y 11.9	FS-APS-011 FS-APS-011 (22.9) (11092018) 11/9/2018 N Y 22.9
Volatile Organic Compounds (VOCs) by USEPA Method 8260C																													
1,1,1-Trichloroethane (TCA)	ug/l	**5**	NS	1 U	1 U	1 U	1 U	1 U	1 U	1 U	**16**	1 U	**3.7 J**	**50**	**54**	1 U	1 U	**1.6**	1 U	1 U	**6.7**	**1.9**	**300**	**350**	1 U	1 U	1 U	**2**	**9.1**
1,1,2,2-Tetrachloroethane	ug/l	5	NS	1 U	1 U	1 U	1 U	1 U	1 U	1 U	4 U	1 U	4 U	8 U	8 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	25 U	20 U	1 U	1 U	1 U	1 U	4 U
1,1,2-Trichloro-1,2,2-Trifluoroethane	ug/l	5	NS	1 U	1 U	1 U	1 U	1 U	1 U	1 U	4 U	1 U	4 U	8 U	8 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	25 U	20 U	1 U	1 U	1 U	1 U	4 U
1,1,2-Trichloroethane	ug/l	1	NS	1 U	1 U	1 U	1 U	1 U	1 U	1 U	4 U	1 U	4 U	8 U	8 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	25 U	20 U	1 U	1 U	1 U	1 U	4 U
1,1-Dichloroethane	ug/l	**5**	NS	1 U	1 U	1 U	1 U	1 U	1 U	1 U	**120**	1 U	**110**	**130**	**140**	1 U	**2.3**	**34**	1 U	1 U	**13**	1 U	**150**	**150**	1 U	1 U	1 U	**1.1**	**6.7**
1,1-Dichloroethene	ug/l	**5**	NS	1 U	1 U	1 U	1 U	1 U	1 U	1 U	**13**	1 U	**23**	**16**	**17**	1 U	1 U	**1.2**	1 U	1 U	**0.46 J**	1 U	**28**	**25**	1 U	1 U	1 U	**0.35 J**	**4.9**
1,2,4-Trichlorobenzene	ug/l	5	NS	1 U	1 U	1 U	1 U	1 U	1 U	1 U	4 U	1 U	4 U	8 U	8 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	25 U	20 U	1 U	1 U	1 U	1 U	4 U
1,2,4-Trimethylbenzene	ug/l	5	NS	1 U	1 U	1 U	1 U	1 U	1 U	1 U	4 U	1 U	4 U	8 U	8 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	25 U	20 U	1 U	1 U	1 U	1 U	4 U
1,2-Dibromo-3-Chloropropane	ug/l	0.04	NS	1 U	1 U	1 U	1 U	1 U	1 U	1 U	4 U	1 U	4 U	8 U	8 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	25 U	20 U	1 U	1 U	1 U	1 U	4 U
1,2-Dibromoethane (Ethylene Dibromide)	ug/l	0.0006	NS	1 U	1 U	1 U	1 U	1 U	1 U	1 U	4 U	1 U	4 U	8 U	8 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	25 U	20 U	1 U	1 U	1 U	1 U	4 U
1,2-Dichlorobenzene	ug/l	3	NS	1 U	1 U	1 U	1 U	1 U	1 U	1 U	4 U	1 U	4 U	8 U	8 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	25 U	20 U	1 U	1 U	1 U	1 U	4 U
1,2-Dichloroethane	ug/l	0.6	NS	1 U	1 U	1 U	1 U	1 U	1 U	1 U	4 U	1 U	4 U	8 U	8 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	25 U	20 U	1 U	1 U	1 U	1 U	4 U
1,2-Dichloropropane	ug/l	1	NS	1 U	1 U	1 U	1 U	1 U	1 U	1 U	4 U	1 U	4 U	8 U	8 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	25 U	20 U	1 U	1 U	1 U	1 U	4 U
1,3,5-Trimethylbenzene (Mesitylene)	ug/l	5	NS	1 U	1 U	1 U	1 U	1 U	1 U	1 U	4 U	1 U	4 U	8 U	8 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	25 U	20 U	1 U	1 U	1 U	1 U	4 U
1,3-Dichlorobenzene	ug/l	3	NS	1 U	**1.2**	**0.94 J**	**0.97 J**	1 U	1 U	1 U	4 U	**1.8**	4 U	8 U	8 U	1 U	1 U	1 U	1 U	1 U	1 U	**1.2**	25 U	20 U	1 U	1 U	1 U	1 U	4 U
1,4-Dichlorobenzene	ug/l	3	NS	1 U	1 U	1 U	1 U	1 U	1 U	1 U	4 U	1 U	4 U	8 U	8 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	25 U	20 U	1 U	1 U	1 U	1 U	4 U
2-Hexanone	ug/l	NS	50	5 U	5 U	5 U	5 U	5 U	5 U	5 U	20 U	5 U	20 U	40 U	40 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	130 U	100 U	5 U	5 U	5 U	5 U	20 U
Acetone	ug/l	NS	50	10 U	**3 J**	10 U	10 U	10 U	10 U	**3.2 J**	40 U	10 U	40 U	80 U	80 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	250 U	200 U	10 U	**4.4 J**	**3.1 J**	10 U	40 U
Benzene	ug/l	1	NS	1 U	1 U	1 U	1 U	1 U	1 U	1 U	4 U	1 U	4 U	8 U	8 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	25 U	20 U	1 U	1 U	1 U	1 U	4 U
Bromodichloromethane	ug/l	NS	50	1 U	1 U	1 U	1 U	1 U	1 U	1 U	4 U	1 U	4 U	8 U	8 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	25 U	20 U	1 U	1 U	1 U	1 U	4 U
Bromoform	ug/l	NS	50	1 U	1 U	1 U	1 U	1 U	1 U	1 U	4 U	1 U	4 U	8 U	8 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	25 U	20 U	1 U	1 U	1 U	1 U	4 U
Bromomethane	ug/l	5	NS	1 U	1 U	1 U	1 U	1 U	1 U	1 U	4 U	1 U	4 U	8 U	8 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	25 U	20 U	1 U	1 U	1 U	1 U	4 U
Carbon Disulfide	ug/l	NS	60	1 U	1 U	1 U	1 U	1 U	1 U	1 U	4 U	1 U	4 U	8 U	8 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	25 U	20 U	1 U	1 U	1 U	1 U	4 U
Carbon Tetrachloride	ug/l	5	NS	1 U	1 U	1 U	1 U	1 U	1 U	1 U	4 U	1 U	4 U	8 U	8 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	25 U	20 U	1 U	1 U	1 U	1 U	4 U
Chlorobenzene	ug/l	5	NS	1 U	1 U	1 U	1 U	1 U	1 U	1 U	4 U	1 U	4 U	8 U	8 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	25 U	20 U	1 U	1 U	1 U	1 U	4 U
Chloroethane	ug/l	5	NS	1 U	1 U	1 U	1 U	1 U	1 U	1 U	4 U	1 U	4 U	8 U	8 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	25 U	20 U	1 U	1 U	1 U	1 U	4 U
Chloroform	ug/l	7	NS	1 U	1 U	1 U	1 U	1 U	1 U	1 U	4 U	1 U	4 U	8 U	8 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	25 U	20 U	1 U	1 U	1 U	1 U	4 U
Chloromethane	ug/l	5	NS	1 U	1 U	1 U	1 U	1 U	1 U	1 U	4 U	1 U	4 U	8 U	8 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	25 U	20 U	1 U	1 U	1 U	1 U	4 U
Cis-1,2-Dichloroethylene	ug/l	**5**	NS	1 U	1 U	1 U	1 U	1 U	1 U	1 U	**3.4 J**	1 U	4 U	8 U	8 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	25 U	20 U	1 U	1 U	1 U	1 U	**7.9**
Cis-1,3-Dichloropropene	ug/l	0.4	NS	1 U	1 U	1 U	1 U	1 U	1 U	1 U	4 U	1 U	4 U	8 U	8 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	25 U	20 U	1 U	1 U	1 U	1 U	4 U
Cyclohexane	ug/l	NS	NS	1 UJ	1 UJ	1 U	1 U	1 U	1 U	1 U	4 U	1 U	4 UJ	8 U	8 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	25 U	20 U	1 U	1 UJ	1 U	1 U	4 U
Cymene	ug/l	5	NS	1 U	1 U	1 U	1 U	1 U	1 U	1 U	4 U	1 U	4 UJ	8 U	8 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	25 U	20 U	1 U	1 U	1 U	1 U	4 U
Dibromochloromethane	ug/l	NS	50	1 U	1 U	1 U	1 U	1 U	1 U	1 U	4 U	1 U	4 U	8 U	8 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	25 U	20 U	1 U	1 U	1 U	1 U	4 U
Dichlorodifluoromethane	ug/l	5	NS	1 U	1 U	1 U	1 U	1 U	1 U	**1**	4 U	1 U	4 U	8 U	8 U	1 U	1 U	1 U	1 U	1 U	1 UJ	1 U	25 U	20 UJ	1 U	1 U	1 U	1 U	4 U
Ethylbenzene	ug/l	5	NS	1 U	1 U	1 U	1 U	1 U	1 U	1 U	4 U	1 U	4 U	8 U	8 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	25 U	20 U	1 U	1 U	1 U	1 U	4 U
Isopropylbenzene (Cumene)	ug/l	5	NS	1 U	1 U	1 U	1 U	1 U	1 U	1 U	4 U	1 U	4 U	8 U	8 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	25 U	20 U	1 U	1 U	1 U	1 U	4 U
Methyl Acetate	ug/l	NS	NS	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	10 U	2.5 U	10 U	20 U	20 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	63 U	50 U	2.5 U	2.5 U	2.5 U	2.5 U	10 U
Methyl Ethyl Ketone (2-Butanone)	ug/l	NS	50	10 U	10 U	10 U	10 U	10 U	10 U	10 U	40 U	10 U	40 U	80 U	80 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	250 U	200 U	10 U	**3.8 J**	10 U	10 U	40 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	ug/l	NS	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	20 U	5 U	20 U	40 U	40 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	130 U	100 U	5 U	5 U	5 U	5 U	20 U
Methylcyclohexane	ug/l	NS	NS	1 U	1 U	1 U	1 U	1 U	1 U	1 U	4 U	1 U	4 U	8 U	8 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	25 U	20 U	1 U	1 U	1 U	1 U	4 U
Methylene Chloride	ug/l	5	NS	1 U	1.2 U	1 U	1 U	1 U	1 U	1 U	**2.7 J**	1 U	4 U	8 U	**4.2 J**	1 U	1 U	1 U	1 U	1 U	1 U	1 U	25 U	20 U	1 U	1 U	1 U	1 U	4 U
Naphthalene	ug/l	NS	10	**0.65 J**	1 U	1 U	1 U	1 U	1 U	1 U	4 U	1 U	4 U	8 U	8 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	25 U	20 U	1 U	1 U	1 U	1 U	4 U
N-Butylbenzene	ug/l	5	NS	1 UJ	1 UJ	1 U	1 U	1 U	1 U	1 U	4 U	1 U	4 UJ	8 U	8 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	25 U	20 U	1 U	1 U	1 U	1 U	4 U
N-Propylbenzene	ug/l	50	NS	1 UJ	1 UJ	1 U	1 U	1 U	1 U	1 U	4 U	1 U	4 UJ	8 U	8 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	25 U	20 U	1 U	1 U	1 U	1 U	4 U
Sec-Butylbenzene	ug/l	5	NS	1 UJ	1 UJ	1 U	1 U	1 U	1 U	1 U	4 U	1 U	4 UJ	8 U	8 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	25 U	20 U	1 U	1 U	1 U	1 U	4 U
Styrene	ug/l	5	NS	1 U	1 U	1 U	1 U	1 U	1 U	1 U	4 U	1 U	4 U	8 U	8 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	25 U	20 U	1 U	1 U	1 U	1 U	4 U
T-Butylbenzene	ug/l	5	NS	1 U	1 U	1 U	1 U	1 U	1 U	1 U	4 U	1 U	4 U	8 U	8 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	25 U	20 U	1 U	1 U	1 U	1 U	4 U
Tert-Butyl Methyl Ether	ug/l	NS	10	**0.51 J**	1 U	1 U	1 U	**0.2 J**	1 U	1 U	4 U	1 U	4 U	8 U	8 U	1 U	**0.24 J**	**0.16 J**	1 U	**0.37 J**	1 U	1 U	25 U	20 U	1 U	1 U	1 U	1 U	4 U
Tetrachloroethylene (PCE)	ug/l	5	NS	1 U	1 U	1 U	1 U	1 U	1 U	1 U	4 U	1 U	4 U	8 U	8 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	25 U	20 U	1 U	1 U	1 U	1 U	4 U
Toluene	ug/l	5	NS	1 U	1 U	1 U	1 U	**0.72 J**	1 U	1 U	4 U	**0.58 J**	4 U	8 U	8 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	25 U	20 U	1 U	1 U	1 U	1 U	4 U
Trans-1,2-Dichloroethene	ug/l	5	NS	1 U	1 U	1 U	1 U	1 U	1 U	1 U	4 U	1 U	4 U	8 U	8 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	25 U	20 U	1 U	1 U	1 U	1 U	4 U
Trans-1,3-Dichloropropene	ug/l	0.4	NS	1 U	1 U	1 U	1 U	1 U	1 U	1 U	4 U	1 U	4 U	8 U	8 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	25 U	20 U	1 U	1 U	1 U	1 U	4 U
Trichloroethylene (TCE)	ug/l	**5**	NS	1 U	1 U	1 U	1 U	1 U	1 U	1 U	**250**	**0.65 J**	**190**	**440**	**420**	1 U	1 U	1 U	1 U	1 U	**1.5**	**4.4**	**1100**	**1000**	1 U	**0.71 J**	1 U	**18**	**220**
Trichlorofluoromethane	ug/l	5	NS	1 U	1 U	1 U	1 U	1 U	1 U	1 U	4 U	1 U	4 U	8 U	8 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	25 U	20 U	1 U	1 U	1 U	1 U	4 U
Vinyl Chloride	ug/l	2	NS	1 U	1 U	1 U	1 U	1 U	1 U	1 U	4 U	1 U	4 U	8 U	8 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	25 U	20 U	1 U	1 U	1 U	1 U	4 U
Xylenes	ug/l	5	NS	2 U	2 U	2 U	2 U	2 U	2 U	2 U	8 U	2 U	8 U	16 U	16 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	50 U	40 U	2 U	2 U	2 U	2 U	8 U

Notes and Abbreviations
ng/L - nanograms per liter
mg/L - milligrams per liter
U - Compound not detected
J - Estimated value
N - Primary sample
FD - Field duplicate sample
na - Sample not analyzed for this parameter
NS - No standard

Bold value indicates detected value
NYSDEC TOGS111 - Standards listed are the New York State Department of Environmental Conservation (NYSDEC) Division
Shade cell indiicates exceedance of NYSGA Standard or Guidance

Table 10 – Analytical Results for Other Parameters from Groundwater APS Samples
Former Oak-Mitsui - First Street

Analyte	Unit	NYDEC TOGS111 GA GUIDANCE	NYDEC TOGS111 GA STANDARD	Location ID / Sample ID / Sample Date / Sample Type / Validated - Y/N / Depth																										
				FS-APS-001 FS-APS-001 (15) (10302018) 10/30/2018 N Y 15	FS-APS-002 FS-APS-002 (13.9) (10302018) 10/30/2018 N Y 13.9	FS-APS-003 FS-APS-003 (14) (10312018) 10/31/2018 N Y 14	FS-APS-003 FS-APS-DUP1 (10312018) 10/31/2018 FD Y 14	FS-APS-003 FS-APS-003 (86.15) (11012018) 11/1/2018 N Y 86.15	FS-APS-003 FS-APS-003 (98.9) (11012018) 11/1/2018 N Y 98.9	FS-APS-004 FS-APS-004 (14.3) (11052018) 11/5/2018 N Y 14.3	FS-APS-004 FS-APS-004 (86.1) (11062018) 11/6/2018 N Y 86.1	FS-APS-005 FS-APS-005 (14.7) (11062018) 11/6/2018 N Y 14.7	FS-APS-005 FS-APS-005 (43.3) (11072018) 11/7/2018 N Y 43.3	FS-APS-005 FS-APS-005 (83.1) (11082018) 11/8/2018 N Y 83.1	FS-APS-005 FS-APS-DUP2 (11082018) 11/8/2018 FD Y 83.1	FS-APS-006 FS-APS-006 (14.5) (10312018) 10/31/2018 N Y 14.5	FS-APS-006 FS-APS-006 (57.9) (10312018) 10/31/2018 N Y 57.9	FS-APS-006 FS-APS-006 (77.4) (11012018) 11/1/2018 N Y 77.4	FS-APS-007 FS-APS-007 (14.5) (11012018) 11/1/2018 N Y 14.5	FS-APS-007 FS-APS-007 (32.7) (11022018) 11/2/2018 N Y 32.7	FS-APS-007 FS-APS-007 (74.6) (11052018) 11/5/2018 N Y 74.6	FS-APS-008 FS-APS-008 (14.9) (11022018) 11/2/2018 N Y 14.9	FS-APS-008 FS-APS-008 (36.9) (11022018) 11/2/2018 N Y 36.9	FS-APS-008 FS-APS-008 (43.2) (11052018) 11/5/2018 N Y 43.2	FS-APS-009 FS-APS-009 (14.5) (11062018) 11/6/2018 N Y 14.5	FS-APS-009 FS-APS-009 (106.6) (11072018) 11/7/2018 N Y 106.6	FS-APS-010 FS-APS-010 (14.6) (11082018) 11/8/2018 N Y 14.6	FS-APS-011 FS-APS-011 (11.9) (11082018) 11/8/2018 N Y 11.9	FS-APS-011 FS-APS-011 (22.9) (11092018) 11/9/2018 N Y 22.9
Semivolatile Organic Compounds (SVOCs) by USEPA Method 8270D SIM-ID																														
1,4-Dioxane (P-Dioxane)	ug/l	NS	NS	0.2 U	0.2 U	0.2 U	0.2 U	**0.15 J**	**0.35**	**0.12 J**	**2 J**	0.2 U	**3.4**	**1.9 J**	**1.9 J**	0.19 U	**1.4 J**	**0.6**	0.2 U	**0.24**	**2.7 J**	**0.24**	**3.3 J**	**3.1 J**	0.2 U	na	0.21 U	0.19 U	**0.64**
Semivolatile Organic Compounds (SVOCs) by USEPA Method 8270D																														
2,4,5-Trichlorophenol	ug/l	NS	NS	5 U	na	5 UJ	5 UJ	5 UJ	5 U	na	5 U	5.4 U	5 U	5 U	5 U	5 U	5 UJ	5 U	5 U	5 U	5 U	7.8 U	5 U	5 U	5.2 U	na	5 U	5 U	5 U
2,4,6-Trichlorophenol	ug/l	NS	NS	5 U	na	5 U	5 U	5 U	5 U	na	5 U	5.4 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	7.8 U	5 U	5 U	5.2 U	na	5 U	5 U	5 U
2,4-Dichlorophenol	ug/l	1	NS	5 U	na	5 U	5 U	5 U	5 U	na	5 U	5.4 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	7.8 U	5 U	5 U	5.2 U	na	5 U	5 U	5 U
2,4-Dimethylphenol	ug/l	1	50	5 U	na	5 U	5 U	5 U	5 U	na	5 U	5.4 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	7.8 U	5 U	5 U	5.2 U	na	5 U	5 U	5 U
2,4-Dinitrophenol	ug/l	1	NS	10 U	na	10 U	10 U	10 U	10 U	na	10 U	11 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	16 U	10 U	10 U	10 U	na	10 U	10 U	10 U
2,4-Dinitrotoluene	ug/l	5	NS	5 U	na	5 U	5 U	5 U	5 U	na	5 U	5.4 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	7.8 U	5 U	5 U	5.2 U	na	5 U	5 U	5 U
2,6-Dinitrotoluene	ug/l	5	NS	5 U	na	5 U	5 U	5 U	5 U	na	5 U	5.4 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	7.8 U	5 U	5 U	5.2 U	na	5 U	5 U	5 U
2-Chloronaphthalene	ug/l	NS	10	5 U	na	5 U	5 U	5 U	5 U	na	5 U	5.4 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	7.8 U	5 U	5 U	5.2 U	na	5 U	5 U	5 U
2-Chlorophenol	ug/l	NS	NS	5 U	na	5 U	5 U	5 U	5 U	na	5 U	5.4 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	7.8 U	5 U	5 U	5.2 U	na	5 U	5 U	5 U
2-Methylnaphthalene	ug/l	NS	NS	5 U	na	5 U	5 U	5 U	5 U	na	5 U	5.4 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	**0.75 J**	5 U	7.8 U	5 U	5 U	5.2 U	na	5 U	5 U	5 U
2-Methylphenol (O-Cresol)	ug/l	NS	NS	5 U	na	5 U	5 U	5 U	5 U	na	5 U	5.4 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	7.8 U	5 U	5 U	5.2 U	na	5 U	5 U	5 U
2-Nitroaniline	ug/l	5	NS	10 U	na	10 U	10 U	10 U	10 U	na	10 U	11 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	16 U	10 U	10 U	10 U	na	10 U	10 U	10 U
2-Nitrophenol	ug/l	NS	NS	5 U	na	5 U	5 U	5 U	5 U	na	5 U	5.4 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	7.8 U	5 U	5 U	5.2 U	na	5 U	5 U	5 U
3,3'-Dichlorobenzidine	ug/l	5	NS	5 U	na	5 U	5 U	5 U	5 U	na	5 U	5.4 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	7.8 U	5 U	5 U	5.2 U	na	5 U	5 U	5 U
3-Nitroaniline	ug/l	5	NS	10 UJ	na	10 U	10 U	10 U	10 U	na	10 UJ	11 UJ	10 U	10 U	10 U	10 UJ	10 U	10 U	10 U	10 U	10 U	16 U	10 U	10 U	10 UJ	na	10 U	10 U	10 U
4,6-Dinitro-2-Methylphenol	ug/l	NS	NS	10 U	na	10 U	10 U	10 U	10 U	na	10 U	11 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	16 U	10 U	10 U	10 U	na	10 U	10 U	10 U
4-Bromophenyl Phenyl Ether	ug/l	NS	NS	5 U	na	5 U	5 U	5 U	5 U	na	5 U	5.4 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	7.8 U	5 U	5 U	5.2 U	na	5 U	5 U	5 U
4-Chloro-3-Methylphenol	ug/l	NS	NS	5 U	na	5 U	5 U	5 U	5 U	na	5 U	5.4 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	7.8 U	5 U	5 U	5.2 U	na	5 U	5 U	5 U
4-Chloroaniline	ug/l	5	NS	5 U	na	5 U	5 U	5 U	5 U	na	5 U	5.4 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	7.8 U	5 U	5 U	5.2 U	na	5 U	5 U	5 U
4-Chlorophenyl Phenyl Ether	ug/l	NS	NS	5 U	na	5 U	5 U	5 U	5 U	na	5 U	5.4 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	7.8 U	5 U	5 U	5.2 U	na	5 U	5 U	5 U
4-Methylphenol (P-Cresol)	ug/l	NS	NS	10 U	na	10 U	10 U	10 U	10 U	na	10 U	11 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	16 U	10 U	10 U	10 U	na	10 U	10 U	10 U
4-Nitroaniline	ug/l	5	NS	10 U	na	10 U	10 U	10 U	10 U	na	10 U	11 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	16 U	10 U	10 U	10 U	na	10 U	10 U	10 U
4-Nitrophenol	ug/l	NS	NS	10 U	na	10 U	10 U	10 U	10 U	na	10 U	11 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	16 U	10 U	10 U	10 U	na	10 U	10 U	10 U
Acenaphthene	ug/l	20	20	**0.47 J**	na	5 U	5 U	5 U	5 U	na	5 U	5.4 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	7.8 U	5 U	5 U	5.2 U	na	5 U	5 U	5 U
Acenaphthylene	ug/l	NS	NS	5 U	na	5 U	5 U	5 U	5 U	na	5 U	5.4 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	7.8 U	5 U	5 U	5.2 U	na	5 U	5 U	5 U
Acetophenone	ug/l	NS	NS	5 U	na	5 U	5 U	5 U	5 U	na	5 U	5.4 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	7.8 U	5 U	5 U	5.2 U	na	5 U	5 U	5 U
Anthracene	ug/l	NS	50	5 U	na	5 U	5 U	5 U	5 U	na	5 U	5.4 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	7.8 U	5 U	5 U	5.2 U	na	5 U	5 U	5 U
Atrazine	ug/l	7.5	NS	5 U	na	5 U	5 U	5 U	5 U	na	5 U	5.4 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	7.8 U	5 U	5 U	5.2 U	na	5 U	5 U	5 U
Benzaldehyde	ug/l	NS	NS	5 U	na	5 U	5 U	5 U	5 U	na	5 U	5.4 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	7.8 U	5 U	5 U	5.2 U	na	5 U	5 U	5 U
Benzo(A)Anthracene	ug/l	NS	0.002	5 U	na	5 U	5 U	5 U	5 U	na	5 U	5.4 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	7.8 U	5 U	5 U	5.2 U	na	5 U	5 U	5 U
Benzo(A)Pyrene	ug/l	0	NS	5 U	na	5 U	5 U	5 U	5 U	na	5 U	5.4 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	7.8 U	5 U	5 U	5.2 U	na	5 U	5 U	5 U
Benzo(B)Fluoranthene	ug/l	NS	0.002	5 U	na	5 U	5 U	5 U	5 U	na	5 U	5.4 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	7.8 U	5 U	5 U	5.2 U	na	5 U	5 U	5 U
Benzo(G,H,I)Perylene	ug/l	NS	NS	5 U	na	5 U	5 U	5 U	5 U	na	5 U	5.4 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	7.8 U	5 U	5 U	5.2 U	na	5 U	5 U	5 U
Benzo(K)Fluoranthene	ug/l	NS	0.002	5 U	na	5 U	5 U	5 U	5 U	na	5 U	5.4 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	7.8 U	5 U	5 U	5.2 U	na	5 U	5 U	5 U
Benzyl Butyl Phthalate	ug/l	NS	50	5 U	na	5 U	5 U	5 U	5 U	na	5 U	5.4 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	7.8 U	5 U	5 U	5.2 U	na	5 U	5 U	5 U
Biphenyl (Diphenyl)	ug/l	5	NS	5 U	na	5 U	5 U	5 U	5 U	na	5 U	5.4 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	7.8 U	5 U	5 U	5.2 U	na	5 U	5 U	5 U
Bis(2-Chloroethoxy) Methane	ug/l	5	NS	5 U	na	5 U	5 U	5 U	5 U	na	5 U	5.4 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	7.8 U	5 U	5 U	5.2 U	na	5 U	5 U	5 U
Bis(2-Chloroethyl) Ether (2-Chloroethyl Ether)	ug/l	1	NS	5 U	na	5 U	5 U	5 U	5 U	na	5 U	5.4 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	7.8 U	5 U	5 U	5.2 U	na	5 U	5 U	5 U
Bis(2-Chloroisopropyl) Ether	ug/l	5	NS	5 UJ	na	5 UJ	5 UJ	5 UJ	5 U	na	5 U	5.4 U	5 U	5 U	5 U	5 U	5 UJ	5 U	5 U	5 U	5 U	7.8 U	5 U	5 U	5.2 U	na	5 U	5 U	5 U
Bis(2-Ethylhexyl) Phthalate	ug/l	5	NS	5 U	na	5 U	5 U	5 U	5 U	na	5 U	5.4 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	7.8 U	5 U	5 U	5.2 U	na	5 U	5 U	5 U
Caprolactam	ug/l	NS	NS	5 U	na	5 U	5 U	5 U	5 U	na	5 U	5.4 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	7.8 U	5 U	5 U	5.2 U	na	5 U	5 U	5 U
Carbazole	ug/l	NS	NS	5 U	na	5 U	5 U	5 U	5 U	na	5 U	5.4 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	7.8 U	5 U	5 U	5.2 U	na	5 U	5 U	5 U
Chrysene	ug/l	NS	0.002	5 U	na	5 U	5 U	5 U	5 U	na	5 U	5.4 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	7.8 U	5 U	5 U	5.2 U	na	5 U	5 U	5 U
Dibenz(A,H)Anthracene	ug/l	NS	NS	5 U	na	5 U	5 U	5 U	5 U	na	5 U	5.4 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	7.8 U	5 U	5 U	5.2 U	na	5 U	5 U	5 U
Dibenzofuran	ug/l	NS	NS	10 U	na	10 U	10 U	10 U	10 U	na	10 U	11 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	16 U	10 U	10 U	10 U	na	10 U	10 U	10 U
Diethyl Phthalate	ug/l	NS	50	5 U	na	5 U	5 U	5 U	5 U	na	5 U	5.4 U	5 U	5 U	5 U	5 U	**0.36 J**	5 U	5 U	5 U	5 U	7.8 U	5 U	5 U	5.2 U	na	5 U	5 U	5 U
Dimethyl Phthalate	ug/l	NS	50	5 U	na	5 U	5 U	5 U	5 U	na	5 U	5.4 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	7.8 U	5 U	5 U	5.2 U	na	5 U	5 U	5 U
Di-N-Butyl Phthalate	ug/l	50	NS	5 U	na	**0.32 J**	5 U	**0.34 J**	5 U	na	5 U	5.4 U	5 U	5 UJ	5 UJ	5 U	5 U	5 U	5 U	5 U	5 U	7.8 U	5 U	5 U	5.2 U	na	5 UJ	5 UJ	5 UJ
Di-N-Octylphthalate	ug/l	NS	50	5 U	na	5 U	5 U	5 U	5 U	na	5 U	5.4 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	7.8 U	5 U	5 U	5.2 U	na	5 U	5 U	5 U
Fluoranthene	ug/l	NS	50	5 U	na	5 U	5 U	5 U	5 U	na	5 U	5.4 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	7.8 U	5 U	5 U	5.2 U	na	5 U	5 U	5 UJ
Fluorene	ug/l	NS	50	**0.76 J**	na	5 U	5 U	5 U	5 U	na	5 U	5.4 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	7.8 U	5 U	5 U	5.2 U	na	5 U	5 U	5 U
Hexachlorobenzene	ug/l	0.04	NS	5 U	na	5 U	5 U	5 U	5 U	na	5 U	5.4 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	7.8 U	5 U	5 U	5.2 U	na	5 U	5 U	5 U
Hexachlorobutadiene	ug/l	0.5	NS	5 U	na	5 UJ	5 UJ	5 UJ	5 U	na	5 U	5.4 U	5 U	5 U	5 U	5 U	5 UJ	5 U	5 U	5 U	5 U	7.8 U	5 U	5 U	5.2 U	na	5 U	5 U	5 U
Hexachlorocyclopentadiene	ug/l	5	NS	5 U	na	5 U	5 U	5 U	5 U	na	5 U	5.4 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	7.8 U	5 U	5 U	5.2 U	na	5 U	5 U	5 U
Hexachloroethane	ug/l	5	NS	5 U	na	5 U	5 U	5 U	5 U	na	5 U	5.4 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	7.8 U	5 U	5 U	5.2 U	na	5 U	5 U	5 U
Indeno(1,2,3-C,D)Pyrene	ug/l	NS	0.002	5 U	na	5 U	5 U	5 U	5 U	na	5 U	5.4 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	7.8 U	5 U	5 U	5.2 U	na	5 U	5 U	5 U
Isophorone	ug/l	NS	50	5 U	na	5 U	5 U	5 U	5 U	na	5 U	5.4 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	7.8 U	5 U	5 U	5.2 U	na	5 U	5 U	5 U
Naphthalene	ug/l	NS	10	5 U	na	5 U	5 U	5 U	5 U	na	5 U	5.4 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	7.8 U	5 U	5 U	5.2 U	na	5 U	5 U	5 U
Nitrobenzene	ug/l	0.4	NS	5 U	na	5 U	5 U	5 U	5 U	na	5 U	5.4 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	7.8 U	5 U	5 U	5.2 U	na	5 U	5 U	5 U
N-Nitrosodi-N-Propylamine	ug/l	NS	NS	5 U	na	5 U	5 U	5 U	5 U	na	5 U	5.4 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	7.8 U	5 U	5 U	5.2 U	na	5 U	5 U	5 U
N-Nitrosodiphenylamine	ug/l	NS	50	5 U	na	5 U	5 U	5 U	5 U	na	5 U	5.4 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	7.8 U	5 U	5 U	5.2 U	na	5 U	5 U	5 U
Pentachlorophenol	ug/l	1	NS	10 U	na	10 U	10 U	10 U	10 U	na	10 U	11 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	16 U	10 U	10 U	10 U	na	10 U	10 U	10 U
Phenanthrene	ug/l	NS	50	5 U	na	5 U	5 U	5 U	5 U	na	5 U	5.4 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	7.8 U	5 U	5 U	5.2 U	na	5 U	5 U	5 U
Phenol	ug/l	1	NS	5 U	na	5 U	5 U	5 U	5 U	na	5 U	5.4 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	7.8 U	5 U	5 U	5.2 U	na	5 U	5 U	5 U
Pyrene	ug/l	NS	50	5 U	na	5 U	5 U	5 U	5 U	na	5 U	5.4 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	7.8 U	5 U	5 U	5.2 U	na	5 U	5 U	5 U

Notes and Abbreviations
ng/L - nanograms per liter
mg/L - milligrams per liter
U - Compound not detected
J - Estimated value
N - Primary sample
FD - Field duplicate sample
na - Sample not analyzed for this parameter
NS - No standard

Bold value indicates detected value
NYSDEC TOGS111 - Standards listed are the New York State Department of Environmental Conservation (NYSDEC) Division
Shade cell indicates exceedance of NYSGA Standard or Guidance

Table 11
Analytical Results for VOCs, SVOCs, Pesticides, PCBs, Metals and Cyanide for Groundwater Samples from Monitoring Wells
Former Oak-Mitsui - First Street

				Location ID	FS-MW-001A	FS-MW-002A	FS-MW-002A	FS-MW-002C	FS-MW-003A	FS-MW-003B	FS-MW-005A	FS-MW-005B	FS-MW-005C	FS-MW-007A	FS-MW-007B	FS-MW-007C	FS-MW-008B	FS-MW-008B
				Sample ID	FS-MW-001A (14.5)-07252019	DUP-07242019	FS-MW-002A (11.5)-07242019	FS-MW-002C (135)-07242019	FS-MW-003A (14.5)-07242019	FS-MW-003B (89.5)-07252019	FS-MW-005A (14.5)-07242019	FS-MW-005B (45.5)-07242019	FS-MW-005C (82.5)-07242019	FS-MW-007A (15)(07232019)	FS-MW-007B (55)-07242019	FS-MW-007C (77.5)-07242019	DUP-07232019	FS-MW-008B (37.5)-07232019
				Sample Date	7/25/2019	7/24/2019	7/24/2019	7/24/2019	7/24/2019	7/25/2019	7/24/2019	7/24/2019	7/24/2019	7/23/2019	7/24/2019	7/24/2019	7/23/2019	7/23/2019
				Sample Type	N	FD	N	N	N	N	N	N	N	N	N	N	FD	N
				Validated - Y/N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
				Depth	14.5	11.5	11.5	135	14.5	89.5	14.5	45.5	82.5	15	55	77.5	37.5	37.5
Analyte	Unit	NYDEC TOGS111 GA GUIDANCE	NYDEC TOGS111 GA STANDARD															
Metals																		
Aluminum	mg/l	NS	NS	0.2 U	0.2 U	**0.28**	0.2 U	0.2 U	**6.6**	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	**34.4**	0.2 U	**0.063 J**
Antimony	mg/l	NS	0.003	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
Arsenic	mg/l	NS	**0.025**	0.015 U	0.015 U	0.015 U	0.015 U	0.015 U	0.015 U	0.015 U	0.015 U	0.015 U	0.015 U	0.015 U	0.015 U	**0.011 J**	0.015 U	0.015 U
Barium	mg/l	NS	1	**0.17**	**0.067**	**0.068**	**0.71**	**0.069**	**0.34**	**0.034**	**0.1**	**0.088**	**0.15**	**0.069**	**0.23**	**0.064**	**0.066**
Beryllium	mg/l	**0.003**	NS	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	**0.001 J**	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	**0.0028**	0.002 U	0.002 U
Cadmium	mg/l	NS	**0.005**	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	**0.0058**	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	**0.0038**	**0.004**
Calcium	mg/l	NS	NS	**77.7**	**66.8**	**65.6**	**114**	**57.6**	**72.7**	**80.3**	**84.9**	**88.3**	**91**	**78.4**	**83.9**	**94.7**	**97.4**
Chromium, Total	mg/l	NS	**0.05**	0.004 U	0.004 U	0.004 U	0.004 U	**0.0011 J**	**0.0041**	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	**0.02**	0.004 U	0.004 U
Cobalt	mg/l	NS	NS	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	**0.0015 J**	**0.0032 J**	0.004 U	0.004 U	0.004 U	**0.00074 J**	0.004 U	**0.0058**	**0.0011 J**	**0.0012 J**
Copper	mg/l	NS	**0.2**	0.01 U	**0.036**	**0.038**	0.01 U	**0.19**	0.01 U	**2.5**	0.01 U	**0.003 J**	0.01 U	0.01 U	**0.038**	0.025	**0.026**
Iron	mg/l	NS	**0.3**	**2.2**	**0.027 J**	**0.25**	**2.4**	0.05 U	**4.2**	0.05 U	**0.03 J**	**0.16**	**1.1**	**0.031 J**	**22.4**	**0.13**	**0.16**
Lead	mg/l	NS	**0.025**	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	**0.0078 J**	**0.0048 J**	0.01 U	**0.003 J**	0.01 U	0.01 U	**0.052**	0.01 U	0.01 U
Magnesium	mg/l	**35**		**12.4**	**8.9**	**8.9**	**46.7**	**8.5**	**17.4**	**13.1**	**18.3**	**17.3**	14.1 U	**17.5**	**23.7**	17.4 U	17.9 U
Manganese	mg/l	NS	**0.3**	**1.5**	**0.028**	**0.032**	**2.1**	**0.038**	**0.61**	**0.55**	**0.54**	**0.76**	**0.95 J**	**0.71**	**1.1**	**0.71 J**	**0.73 J**
Mercury	mg/l	NS	0.0007	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Nickel	mg/l	NS	**0.1**	0.01 U	0.01 U	0.01 U	0.01 U	**0.0063 J**	**0.0037 J**	**0.033**	0.01 U	0.01 U	0.01 U	**0.0014 J**	**0.018**	**0.0065 J**	**0.0067 J**
Potassium	mg/l	NS	NS	**4.1**	**4.1**	**4.1**	**26.6**	**4**	**2.5**	**5.8**	**2.4**	**4.2**	**4.4 J**	**1.5**	**7.4**	**4.1 J**	**4.2 J**
Selenium	mg/l	NS	0.01	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U
Silver	mg/l	NS	0.05	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U
Sodium	mg/l	NS	**20**	**92.6**	**133**	**133**	**362**	**128**	**57.6**	**148**	**64.2**	**96.4**	**64.4 J**	**51.2**	**102**	**97.4 J**	**99.6 J**
Thallium	mg/l	0.0005	NS	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
Vanadium	mg/l	NS	NS	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	**0.0037 J**	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	**0.018**	0.005 U	0.005 U	0.005 U
Zinc	mg/l	2	NS	0.01 U	0.01 U	0.01 U	0.01 U	0.024 U	0.017 U	**0.14**	0.01 U	0.01 U	0.01 U	0.01 U	**0.073**	0.017 U	0.018 U
Total Cyanide by USEPA Method 9012B																		
Cyanide	mg/l	NS	0.2	0.01 U	**0.0059 J**	**0.005 J**	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 UJ	**0.0075 J**	0.01 U	0.01 U	0.01 U	**0.007 J**
Weak Acid Dissociable Cyanide by Method SM4500																		
Weak Acid Dissociable Cyanide	mg/l	NS	NS	0.01 UJ	0.01 UJ	0.01 U	0.01 U	0.01 U	0.01 UJ	0.01 U	0.01 U	0.01 UJ	0.01 U	0.01 U	**0.024 J**	0.01 U	0.01 U
Pesticides by USEPA Method 8081B																		
Aldrin	ug/l	NS	NS	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.052 U	0.05 U	0.05 U	0.05 U	0.05 U
Alpha Bhc (Alpha Hexachlorocyclohexane)	ug/l	NS	**0.01**	**0.0092 J**	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.052 U	0.05 U	0.05 U	**0.0095 J**	0.05 U
Alpha Endosulfan	ug/l	NS	NS	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.052 U	0.05 U	0.05 U	0.05 U	0.05 U
Beta Bhc (Beta Hexachlorocyclohexane)	ug/l	NS	0.04	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.052 U	0.05 U	0.05 U	0.05 U	0.05 U
Beta Endosulfan	ug/l	NS	NS	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.052 U	0.05 U	0.05 U	0.05 U	0.05 U
cis-Chlordane	ug/l	NS	NS	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.052 U	0.05 U	0.05 U	0.05 U	0.05 U
Delta BHC (Delta Hexachlorocyclohexane)	ug/l	NS	0.04	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.052 U	0.05 U	0.05 U	0.05 U	0.05 U
Dieldrin	ug/l	NS	0.004	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.052 U	0.05 U	0.05 U	0.05 U	0.05 U
Endosulfan Sulfate	ug/l	NS	NS	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.052 U	0.05 U	0.05 U	0.05 U	0.05 U
Endrin	ug/l	NS	0	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.052 U	0.05 U	0.05 U	0.05 U	0.05 U
Endrin Aldehyde	ug/l	NS	5	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.052 U	0.05 U	0.05 U	0.05 U	0.05 U
Endrin Ketone	ug/l	NS	5	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.052 U	0.05 U	0.05 U	0.05 U	0.05 U
Gamma Bhc (Lindane)	ug/l	NS	0.05	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.052 U	0.05 U	0.05 U	0.05 U	0.05 U
Heptachlor	ug/l	NS	0.04	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.052 U	0.05 U	0.05 U	0.05 U	0.05 U
Heptachlor Epoxide	ug/l	NS	0.03	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.052 U	0.05 U	0.05 U	0.05 U	0.05 U
Methoxychlor	ug/l	NS	35	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.052 U	0.05 U	0.05 U	0.05 U	0.05 U
P,P'-DDD	ug/l	NS	0.3	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.052 U	0.05 U	0.05 U	0.05 U	0.05 U
P,P'-DDE	ug/l	NS	0.2	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.052 U	0.05 U	0.05 U	0.05 U	0.05 U
P,P'-DDT	ug/l	NS	0.2	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.052 U	0.05 U	0.05 U	0.05 U	0.05 U
Toxaphene	ug/l	NS	0.06	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.52 U	0.5 U	0.5 U	0.5 U	0.5 U
trans-Chlordane	ug/l	NS	NS	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.052 U	0.05 U	0.05 U	0.05 U	0.05 U
Polychlorined Biphenyls (PCBs) by USEPA Method 8082A																		
PCB-1016 (Aroclor 1016)	ug/l	NS	0.09	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
PCB-1221 (Aroclor 1221)	ug/l	NS	0.09	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
PCB-1232 (Aroclor 1232)	ug/l	NS	0.09	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
PCB-1242 (Aroclor 1242)	ug/l	NS	0.09	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
PCB-1248 (Aroclor 1248)	ug/l	NS	0.09	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
PCB-1254 (Aroclor 1254)	ug/l	NS	0.09	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
PCB-1260 (Aroclor 1260)	ug/l	NS	0.09	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U

Notes and Abbreviations
ng/L - nanograms per liter
mg/L - milligrams per liter
U - Compound not detected
J - Estimated value
N - Primary sample
FD - Field duplicate sample
na - Sample not analyzed for this parameter
NS - No standard
Bold value indicates detected value

Shade cell indiicates exceedance of NYSGA Standard or Guidance
NYSDEC TOGS111 - Standards listed are the New York State Department of Environmental Conservation (NYSDEC) Division of Water Technical

Table 11
Analytical Results for VOCs, SVOCs, Pesticides, PCBs, Metals and Cyanide for Groundwater Samples from Monitoring Wells
Former Oak-Mitsui - First Street

			Location ID	FS-MW-001A	FS-MW-002A	FS-MW-002A	FS-MW-002C	FS-MW-003A	FS-MW-003B	FS-MW-005A	FS-MW-005B	FS-MW-005C	FS-MW-007A	FS-MW-007B	FS-MW-007C	FS-MW-008B	FS-MW-008B
			Sample ID	FS-MW-001A (14.5)-07252019	DUP-07242019	FS-MW-002A (11.5)-07242019	FS-MW-002C (135)-07242019	FS-MW-003A (14.5)-07242019	FS-MW-003B (89.5)-07252019	FS-MW-005A (14.5)-07242019	FS-MW-005B (45.5)-07242019	FS-MW-005C (82.5)-07242019	FS-MW-007A (15)(07232019)	FS-MW-007B (55)-07242019	FS-MW-007C (77.5)-07242019	DUP-07232019	FS-MW-008B (37.5)-07232019
			Sample Date	7/25/2019	7/24/2019	7/24/2019	7/24/2019	7/24/2019	7/25/2019	7/24/2019	7/24/2019	7/24/2019	7/23/2019	7/24/2019	7/24/2019	7/23/2019	7/23/2019
			Sample Type	N	FD	N	N	N	N	N	N	N	N	N	N	FD	N
			Validated - Y/N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
			Depth	14.5	11.5	11.5	135	14.5	89.5	14.5	45.5	82.5	15	55	77.5	37.5	37.5
Analyte	Unit	NYDEC TOGS111 GA GUIDANCE	NYDEC TOGS111 GA STANDARD														
Volatile Organic Compounds (VOCs) by USEPA Method 8260C																	
1,1,1-Trichloroethane (TCA)	ug/l	NS	**5**	1 U	1 U	1 U	1 U	1 U	1 U	1 U	**12**	**35**	1 U	**1.5**	**4.8**	**390**	**360**
1,1,2,2-Tetrachloroethane	ug/l	NS	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	10 U	1 U	1 U	1 U	20 U	20 U
1,1,2-Trichloro-1,2,2-Trifluoroethane	ug/l	NS	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	10 U	1 U	1 U	1 U	20 U	20 U
1,1,2-Trichloroethane	ug/l	NS	1	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	10 U	1 U	1 U	1 U	20 U	20 U
1,1-Dichloroethane	ug/l	NS	**5**	1 U	1 U	1 U	1 U	1 U	1 U	1 U	**85**	**160**	1 U	**20**	**76**	**190**	**170**
1,1-Dichloroethene	ug/l	NS	**5**	1 U	1 U	1 U	1 U	1 U	1 U	1 U	**28**	**31**	1 U	**6.9**	**1.1**	**52**	**45**
1,2,4-Trichlorobenzene	ug/l	NS	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	10 U	1 U	1 U	1 U	20 U	20 U
1,2,4-Trimethylbenzene	ug/l	NS	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	10 U	1 U	1 U	1 U	20 U	20 U
1,2-Dibromo-3-Chloropropane	ug/l	NS	0.04	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	10 U	1 U	1 U	1 U	20 U	20 U
1,2-Dibromoethane (Ethylene Dibromide)	ug/l	NS	0.0006	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	10 U	1 U	1 U	1 U	20 U	20 U
1,2-Dichlorobenzene	ug/l	NS	3	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	10 U	1 U	1 U	1 U	20 U	20 U
1,2-Dichloroethane	ug/l	NS	0.6	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	10 U	1 U	1 U	1 U	20 U	20 U
1,2-Dichloropropane	ug/l	NS	1	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	10 U	1 U	1 U	1 U	20 U	20 U
1,3,5-Trimethylbenzene (Mesitylene)	ug/l	NS	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	10 U	1 U	1 U	1 U	20 U	20 U
1,3-Dichlorobenzene	ug/l	NS	3	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	10 U	1 U	1 U	1 U	20 U	20 U
1,4-Dichlorobenzene	ug/l	NS	3	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	10 U	1 U	1 U	1 U	20 U	20 U
2-Hexanone	ug/l	50	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	25 U	50 U	5 U	5 U	5 U	100 U	100 U
Acetone	ug/l	50	NS	10 U	10 U	10 U	10 U	10 U	10 U	10 U	50 U	100 U	10 U	10 U	10 U	200 U	200 U
Benzene	ug/l	NS	1	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	10 U	1 U	1 U	1 U	20 U	20 U
Bromodichloromethane	ug/l	50	NS	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	10 U	1 U	1 U	1 U	20 U	20 U
Bromoform	ug/l	50	NS	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	10 U	1 UJ	1 U	1 U	20 UJ	20 UJ
Bromomethane	ug/l	NS	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	10 U	1 U	1 U	1 U	20 U	20 U
Carbon Disulfide	ug/l	60	NS	1 U	1 U	1 U	**0.37 J**	1 U	1 U	1 U	5 U	10 U	1 U	1 U	**0.25 J**	20 U	20 U
Carbon Tetrachloride	ug/l	NS	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	10 U	1 U	1 U	1 U	20 U	20 U
Chlorobenzene	ug/l	NS	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	10 U	1 U	1 U	1 U	20 U	20 U
Chloroethane	ug/l	NS	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	10 U	1 U	1 U	1 U	20 U	20 U
Chloroform	ug/l	NS	7	1 U	**0.74 J**	**0.76 J**	1 U	**0.97 J**	1 U	1 U	5 U	10 U	1 U	1 U	1 U	20 U	20 U
Chloromethane	ug/l	NS	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	10 U	1 U	1 U	1 U	20 U	20 U
Cis-1,2-Dichloroethylene	ug/l	NS	**5**	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	10 U	1 U	1.3	1 U	**24**	**21**
Cis-1,3-Dichloropropene	ug/l	NS	0.4	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	10 U	1 U	1 U	1 U	20 U	20 U
Cyclohexane	ug/l	NS	NS	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	10 U	**0.78 J**	1 U	1 U	20 U	20 U
Cymene	ug/l	NS	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	10 U	1 U	1 U	1 U	20 U	20 U
Dibromochloromethane	ug/l	50	NS	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	10 U	1 U	1 U	1 U	20 U	20 U
Dichlorodifluoromethane	ug/l	NS	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	10 U	1 U	1 U	1 U	20 U	20 U
Ethylbenzene	ug/l	NS	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	10 U	1 U	1 U	1 U	20 U	20 U
Isopropylbenzene (Cumene)	ug/l	NS	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	10 U	1 U	1 U	1 U	20 U	20 U
Methyl Acetate	ug/l	NS	NS	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	13 U	25 U	2.5 U	2.5 U	2.5 U	50 U	50 U
Methyl Ethyl Ketone (2-Butanone)	ug/l	50	NS	10 U	10 U	10 U	10 U	10 U	**3.5 J**	10 U	50 U	100 U	10 U	10 U	10 U	200 U	200 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	ug/l	NS	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	25 U	50 U	5 U	5 U	5 U	100 U	100 U
Methylcyclohexane	ug/l	NS	NS	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	10 U	**0.75 J**	1 U	1 U	20 U	20 U
Methylene Chloride	ug/l	NS	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	10 U	1 U	1 U	1 U	20 U	20 U
Naphthalene	ug/l	10	NS	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	10 U	1 U	1 U	1 U	20 U	20 U
N-Butylbenzene	ug/l	NS	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	10 U	1 U	1 U	1 U	20 U	20 U
N-Propylbenzene	ug/l	NS	50	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	10 U	1 U	1 U	1 U	20 U	20 U
Sec-Butylbenzene	ug/l	NS	5	**1**	1 U	1 U	1 U	1 U	1 U	1 U	5 U	10 U	1 U	1 U	1 U	20 U	20 U
Styrene	ug/l	NS	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	10 U	1 U	1 U	1 U	20 U	20 U
T-Butylbenzene	ug/l	NS	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	10 U	1 U	1 U	1 U	20 U	20 U
Tert-Butyl Methyl Ether	ug/l	10	NS	**0.22 J**	1 U	1 U	1 U	1 U	**0.19 J**	1 U	5 U	10 U	1 U	**0.18 J**	1 U	20 U	20 U
Tetrachloroethylene (PCE)	ug/l	NS	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	10 U	1 U	1 U	1 U	20 U	20 U
Toluene	ug/l	NS	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	10 U	1 U	1 U	1 U	20 U	20 U
Trans-1,2-Dichloroethene	ug/l	NS	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	10 U	1 U	1 U	1 U	20 U	20 U
Trans-1,3-Dichloropropene	ug/l	NS	0.4	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	10 U	1 U	1 U	1 U	20 U	20 U
Trichloroethylene (TCE)	ug/l	NS	**5**	1 U	1 U	1 U	1 U	1 U	1 U	**0.47 J**	**320**	**380**	1 U	**56**	**5.1**	**1300**	**1300**
Trichlorofluoromethane	ug/l	NS	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	10 U	1 U	1 U	1 U	20 U	20 U
Vinyl Chloride	ug/l	NS	2	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	10 U	1 U	1 U	1 U	20 U	20 U
Xylenes	ug/l	NS	5	2 U	2 U	2 U	2 U	2 U	2 U	2 U	10 U	20 U	2 U	2 U	2 U	40 U	40 U

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Table 11
Analytical Results for VOCs, SVOCs, Pesticides, PCBs, Metals and Cyanide for Groundwater Samples from Monitoring Wells
Former Oak-Mitsui - First Street

Analyte	Unit	NYDEC TOGS111 GA GUIDANCE	NYDEC TOGS111 GA STANDARD	Location ID / Sample ID / Sample Date / Sample Type / Validated - Y/N / Depth												
				FS-MW-001A FS-MW-001A (14.5)-07252019 7/25/2019 N Y 14.5	FS-MW-002A DUP-07242019 7/24/2019 FD Y 11.5	FS-MW-002A FS-MW-002A (11.5)-07242019 7/24/2019 N Y 11.5	FS-MW-002C FS-MW-002C (135)-07242019 7/24/2019 N Y 135	FS-MW-003A FS-MW-003A (14.5)-07242019 7/24/2019 N Y 14.5	FS-MW-003B FS-MW-003B (89.5)-07252019 7/25/2019 N Y 89.5	FS-MW-005A FS-MW-005A (14.5)-07242019 7/24/2019 N Y 14.5	FS-MW-005B FS-MW-005B (45.5)-07242019 7/24/2019 N Y 45.5	FS-MW-005C FS-MW-005C (82.5)-07242019 7/24/2019 N Y 82.5	FS-MW-007A FS-MW-007A (15)(07232019) 7/23/2019 N Y 15	FS-MW-007B FS-MW-007B (55)-07242019 7/24/2019 N Y 55	FS-MW-007C FS-MW-007C (77.5)-07242019 7/24/2019 N Y 77.5	FS-MW-008B DUP-07232019 7/23/2019 FD Y 37.5	FS-MW-008B FS-MW-008B (37.5)-07232019 7/23/2019 N Y 37.5
Semivolatile Organic Compounds (SVOCs) by USEPA Method 8270D SIM-ID																
1,4-Dioxane (P-Dioxane)	ug/l	NS	NS	0.2 UJ	0.2 UJ	0.2 UJ	0.2 U	0.2 UJ	0.2 U	0.2 UJ	**2.8 J**	**1.8 J**	0.2 U	**1.9**	**2.8**	**3.7 J**	**3.7 J**
Semivolatile Organic Compounds (SVOCs) by USEPA Method 8270D																
2,4,5-Trichlorophenol	ug/l	NS	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2,4,6-Trichlorophenol	ug/l	NS	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2,4-Dichlorophenol	ug/l	NS	1	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2,4-Dimethylphenol	ug/l	50	1	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2,4-Dinitrophenol	ug/l	NS	1	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dinitrotoluene	ug/l	NS	5	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2,6-Dinitrotoluene	ug/l	NS	5	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2-Chloronaphthalene	ug/l	10	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2-Chlorophenol	ug/l	NS	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2-Methylnaphthalene	ug/l	NS	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2-Methylphenol (O-Cresol)	ug/l	NS	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2-Nitroaniline	ug/l	NS	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Nitrophenol	ug/l	NS	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
3,3'-Dichlorobenzidine	ug/l	NS	5	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
3-Nitroaniline	ug/l	NS	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4,6-Dinitro-2-Methylphenol	ug/l	NS	NS	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Bromophenyl Phenyl Ether	ug/l	NS	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
4-Chloro-3-Methylphenol	ug/l	NS	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
4-Chloroaniline	ug/l	NS	5	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
4-Chlorophenyl Phenyl Ether	ug/l	NS	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
4-Methylphenol (P-Cresol)	ug/l	NS	NS	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Nitroaniline	ug/l	NS	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Nitrophenol	ug/l	NS	NS	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Acenaphthene	ug/l	20	20	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Acenaphthylene	ug/l	NS	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Acetophenone	ug/l	NS	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Anthracene	ug/l	50	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Atrazine	ug/l	NS	7.5	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 UJ	5 U	5 U	5 U	5 U
Benzaldehyde	ug/l	NS	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Benzo(A)Anthracene	ug/l	0.002	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Benzo(A)Pyrene	ug/l	NS	0	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Benzo(B)Fluoranthene	ug/l	0.002	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Benzo(G,H,I)Perylene	ug/l	NS	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Benzo(K)Fluoranthene	ug/l	0.002	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Benzyl Butyl Phthalate	ug/l	50	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Biphenyl (Diphenyl)	ug/l	NS	5	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Bis(2-Chloroethoxy) Methane	ug/l	NS	5	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Bis(2-Chloroethyl) Ether (2-Chloroethyl Ether)	ug/l	NS	1	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Bis(2-Chloroisopropyl) Ether	ug/l	NS	5	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Bis(2-Ethylhexyl) Phthalate	ug/l	NS	**5**	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Caprolactam	ug/l	NS	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Carbazole	ug/l	NS	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Chrysene	ug/l	0.002	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Dibenz(A,H)Anthracene	ug/l	NS	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Dibenzofuran	ug/l	NS	NS	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Diethyl Phthalate	ug/l	50	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Dimethyl Phthalate	ug/l	50	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Di-N-Butyl Phthalate	ug/l	NS	50	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Di-N-Octylphthalate	ug/l	50	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Fluoranthene	ug/l	50	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Fluorene	ug/l	50	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Hexachlorobenzene	ug/l	NS	0.04	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Hexachlorobutadiene	ug/l	NS	0.5	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Hexachlorocyclopentadiene	ug/l	NS	5	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Hexachloroethane	ug/l	NS	5	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Indeno(1,2,3-C,D)Pyrene	ug/l	0.002	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Isophorone	ug/l	50	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Naphthalene	ug/l	10	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Nitrobenzene	ug/l	NS	0.4	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
N-Nitrosodi-N-Propylamine	ug/l	NS	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
N-Nitrosodiphenylamine	ug/l	50	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Pentachlorophenol	ug/l	NS	1	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Phenanthrene	ug/l	50	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Phenol	ug/l	NS	1	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Pyrene	ug/l	50	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U

Notes and Abbreviations
ng/L - nanograms per liter
mg/L - milligrams per liter
U - Compound not detected
J - Estimated value
N - Primary sample
FD - Field duplicate sample
na - Sample not analyzed for this parameter
NS - No standard
Bold value indicates detected value

Shade cell indiicates exceedance of NYSGA Standard or Guidance
NYSDEC TOGS111 - Standards listed are the New York State Department of Environmental Conservation (NYSDEC) Division of Water Technical

Table 11
Analytical Results for VOCs, SVOCs, Pesticides, PCBs, Metals and Cyanide for Groundwater Samples from Monitoring Wells
Former Oak-Mitsui - First Street

				Location ID	FS-MW-009C	FS-MW-011A	FS-MW-012A	FS-MW-012B	FS-MW-012C	FS-MW-013A	FS-MW-013B	FS-MW-1	FS-MW-3	FS-MW-4	FS-TMW-001	FS-TMW-003	FS-TMW-004
				Sample ID	FS-MW-009C (97.3)(07232019)	FS-MW-011A 18.5)-07242019	FS-MW-012A (12.5)(07232019)	FS-MW-12B (45)(07232019)	FS-MW-012C (62.5)(07232019)	FS-MW-13A (15.5)-07222019	FS-MW-13B (30.5)-07222019	FS-MW-1 (17.75)(07232019)	FS-MW-3 (14.25)(07232019)	FS-MW-4 (13.57)(07252019	FS-TMW-001 (15)-07222019	FS-TMW-003 (18.5)-07222019	FS-TMW-004 (9.5)-07222019
				Sample Date	7/23/2019	7/24/2019	7/23/2019	7/23/2019	7/23/2019	7/22/2019	7/22/2019	7/23/2019	7/23/2019	7/25/2019	7/22/2019	7/22/2019	7/22/2019
				Sample Type	N	N	N	N	N	N	N	N	N	N	N	N	N
				Validated - Y/N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
				Depth	97.3	18.5	12.5	45	62.5	15.5	30.5	17.75	14.25	13.57	15	18.5	9.5
Analyte	Unit	NYDEC TOGS111 GA GUIDANCE	NYDEC TOGS111 GA STANDARD														
Metals																	
Aluminum	mg/l	NS	NS	**220**	0.2 U	0.097 J	0.2 U	0.2 U	0.2 U	0.2 U	**0.15 J**	**0.81**	0.2 U	na	na	na	
Antimony	mg/l	NS	0.003	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	na	na	na	
Arsenic	mg/l	NS	**0.025**	**0.031**	0.015 U	0.015 U	0.015 U	0.015 U	0.015 U	0.015 U	0.015 U	0.015 U	0.015 U	na	na	na	
Barium	mg/l	NS	1	**0.89**	**0.092**	0.046 U	0.021 U	**0.1**	**0.076 J**	**0.057 J**	0.039 U	0.047 U	**0.038**	na	na	na	
Beryllium	mg/l	**0.003**	NS	**0.029**	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	na	na	na	
Cadmium	mg/l	NS	**0.005**	0.002 U	0.002 U	**0.019**	**0.014**	**0.00051 J**	**0.00067 J**	0.002 U	0.002 U	0.002 U	0.002 U	na	na	na	
Calcium	mg/l	NS	NS	**142**	**91.5**	79.6 U	**120**	**91.1**	**74 J**	**117 J**	82.7 U	50.4 U	**50.1**	na	na	na	
Chromium, Total	mg/l	NS	**0.05**	**0.077**	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	**0.0025 J**	**0.0018 J**	0.004 U	na	na	na
Cobalt	mg/l	NS	NS	**0.048**	0.004 U	**0.008**	**0.0042**	**0.00079 J**	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	na	na	na	
Copper	mg/l	NS	**0.2**	**0.13**	**0.0096 J**	**15.6**	**2.3**	**0.012**	**0.011**	0.01 U	**0.064**	0.01 U	0.01 U	**2.7**	**86.2**	**11.5**	
Iron	mg/l	NS	**0.3**	**102**	0.05 U	**0.24**	**0.038 J**	**0.06**	0.05 U	0.05 U	**0.28**	**1.2**	0.05 U	na	na	na	
Lead	mg/l	NS	**0.025**	**0.2**	0.01 U	**0.0048 J**	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	na	na	na	
Magnesium	mg/l	**35**		**63**	**13.6**	18.3 U	22.1 U	20.5 U	**15.8 J**	**22.4 J**	16.2 U	7.6 U	**6.7**	na	na	na	
Manganese	mg/l	NS	**0.3**	**2 J**	**0.37**	**0.69 J**	**0.3 J**	**0.73 J**	**0.098 J**	**0.78 J**	**0.021 J**	**0.045 J**	0.003 U	na	na	na	
Mercury	mg/l	NS	0.0007	0.00058	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	na	na	na	
Nickel	mg/l	NS	**0.1**	0.082	**0.0014 J**	**0.12**	**0.11**	**0.0021 J**	**0.0013 J**	0.01 U	0.01 U	0.01 U	0.01 U	na	na	na	
Potassium	mg/l	NS	NS	**22.1 J**	**4.5**	**7.5 J**	**7.2 J**	3.3 UJ	**4.6**	**4.2**	**4.4 J**	3.5 UJ	**3.6**	na	na	na	
Selenium	mg/l	NS	0.01	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	na	na	na	
Silver	mg/l	NS	0.05	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U	na	na	na	
Sodium	mg/l	NS	**20**	**66.9 J**	**99.7**	**110 J**	**119 J**	**82.4 J**	**88 J**	**108 J**	**108 J**	**112 J**	**114**	na	na	na	
Thallium	mg/l	0.0005	NS	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	na	na	na	
Vanadium	mg/l	NS	NS	**0.11**	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	na	na	na	
Zinc	mg/l	2	NS	**0.38**	0.01 U	**0.47**	**0.44**	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	na	na	na	
Total Cyanide by USEPA Method 9012B																	
Cyanide	mg/l	NS	0.2	0.01 U	0.01 U	0.01 U	**0.0078 J**	0.01 U	0.01 U	0.01 U	**0.0055 J**	**0.0066 J**	0.01 U	na	na	na	
Weak Acid Dissociable Cyanide by Method SM4500																	
Weak Acid Dissociable Cyanide	mg/l	NS	NS	0.01 U	0.01 U	0.01 UJ	0.01 U	0.01 U	0.01 UJ	0.01 UJ	0.01 U	**0.0077 J**	0.01 UJ	na	na	na	
Pesticides by USEPA Method 8081B																	
Aldrin	ug/l	NS	NS	0.06 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 UJ	0.05 U	0.05 U	0.05 U	0.05 U	na	na	na	
Alpha Bhc (Alpha Hexachlorocyclohexane)	ug/l	NS	**0.01**	0.06 U	0.05 U	0.05 U	**0.01 J**	**0.0097 J**	0.05 UJ	0.05 U	0.05 U	0.05 U	0.05 U	na	na	na	
Alpha Endosulfan	ug/l	NS	NS	0.06 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 UJ	0.05 U	0.05 U	0.05 U	0.05 U	na	na	na	
Beta Bhc (Beta Hexachlorocyclohexane)	ug/l	NS	0.04	0.06 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 UJ	0.05 U	0.05 U	0.05 U	0.05 U	na	na	na	
Beta Endosulfan	ug/l	NS	NS	0.06 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 UJ	0.05 U	0.05 U	0.05 U	0.05 U	na	na	na	
cis-Chlordane	ug/l	NS	NS	0.06 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 UJ	0.05 U	0.05 U	0.05 U	0.05 U	na	na	na	
Delta BHC (Delta Hexachlorocyclohexane)	ug/l	NS	0.04	0.06 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 UJ	0.05 U	0.05 U	0.05 U	0.05 U	na	na	na	
Dieldrin	ug/l	NS	0.004	0.06 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 UJ	0.05 U	0.05 U	0.05 U	0.05 U	na	na	na	
Endosulfan Sulfate	ug/l	NS	NS	0.06 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 UJ	0.05 U	0.05 U	0.05 U	0.05 U	na	na	na	
Endrin	ug/l	NS	0	0.06 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 UJ	0.05 U	0.05 U	0.05 U	0.05 U	na	na	na	
Endrin Aldehyde	ug/l	NS	5	0.06 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 UJ	0.05 U	0.05 U	0.05 U	0.05 U	na	na	na	
Endrin Ketone	ug/l	NS	5	0.06 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 UJ	0.05 U	0.05 U	0.05 U	0.05 U	na	na	na	
Gamma Bhc (Lindane)	ug/l	NS	0.05	0.06 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 UJ	0.05 U	0.05 U	0.05 U	0.05 U	na	na	na	
Heptachlor	ug/l	NS	0.04	0.06 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 UJ	0.05 U	0.05 U	0.05 U	0.05 U	na	na	na	
Heptachlor Epoxide	ug/l	NS	0.03	0.06 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 UJ	0.05 U	0.05 U	0.05 U	0.05 U	na	na	na	
Methoxychlor	ug/l	NS	35	0.06 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 UJ	0.05 U	0.05 U	0.05 U	0.05 U	na	na	na	
P,P'-DDD	ug/l	NS	0.3	0.06 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 UJ	0.05 U	0.05 U	0.05 U	0.05 U	na	na	na	
P,P'-DDE	ug/l	NS	0.2	0.06 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 UJ	0.05 U	0.05 U	0.05 U	0.05 U	na	na	na	
P,P'-DDT	ug/l	NS	0.2	0.06 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 UJ	0.05 U	0.05 U	0.05 U	0.05 U	na	na	na	
Toxaphene	ug/l	NS	0.06	0.6 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	na	na	na	
trans-Chlordane	ug/l	NS	NS	0.06 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 UJ	0.05 U	0.05 U	0.05 U	0.05 U	na	na	na	
Polychlorined Biphenyls (PCBs) by USEPA Method 8082A																	
PCB-1016 (Aroclor 1016)	ug/l	NS	0.09	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	na	na	na	
PCB-1221 (Aroclor 1221)	ug/l	NS	0.09	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	na	na	na	
PCB-1232 (Aroclor 1232)	ug/l	NS	0.09	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	na	na	na	
PCB-1242 (Aroclor 1242)	ug/l	NS	0.09	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	na	na	na	
PCB-1248 (Aroclor 1248)	ug/l	NS	0.09	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	na	na	na	
PCB-1254 (Aroclor 1254)	ug/l	NS	0.09	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	na	na	na	
PCB-1260 (Aroclor 1260)	ug/l	NS	0.09	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	na	na	na	

Notes and Abbreviations

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mg/L - milligrams per liter
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N - Primary sample
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NS - No standard
Bold value indicates detected value

Shade cell indiicates exceedanc
NYSDEC TOGS111 - Standards

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Former Oak-Mitsui - First Street

			Location ID	FS-MW-009C	FS-MW-011A	FS-MW-012A	FS-MW-012B	FS-MW-012C	FS-MW-013A	FS-MW-013B	FS-MW-1	FS-MW-3	FS-MW-4	FS-TMW-001	FS-TMW-003	FS-TMW-004
			Sample ID	FS-MW-009C (97.3)(07232019)	FS-MW-011A 18.5)-07242019	FS-MW-012A (12.5)(07232019)	FS-MW-12B (45)(07232019)	FS-MW-012C (62.5)(07232019)	FS-MW-13A (15.5)-07222019	FS-MW-13B (30.5)-07222019	FS-MW-1 (17.75)(07232019)	FS-MW-3 (14.25)(07232019)	FS-MW-4 (13.57)(07252019	FS-TMW-001 (15)-07222019	FS-TMW-003 (18.5)-07222019	FS-TMW-004 (9.5)-07222019
			Sample Date	7/23/2019	7/24/2019	7/23/2019	7/23/2019	7/23/2019	7/22/2019	7/22/2019	7/23/2019	7/23/2019	7/25/2019	7/22/2019	7/22/2019	7/22/2019
			Sample Type	N	N	N	N	N	N	N	N	N	N	N	N	N
			Validated - Y/N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
			Depth	97.3	18.5	12.5	45	62.5	15.5	30.5	17.75	14.25	13.57	15	18.5	9.5
Analyte	Unit	NYDEC TOGS111 GA GUIDANCE	NYDEC TOGS111 GA STANDARD													
Volatile Organic Compounds (VOCs) by USEPA Method 8260C																
1,1,1-Trichloroethane (TCA)	ug/l	NS	**5**	1 U	**0.99 J**	1 U	1 U	**12**	1 U	**2.9**	1 U	1 U	1 U	na	na	na
1,1,2,2-Tetrachloroethane	ug/l	NS	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	na	na	na
1,1,2-Trichloro-1,2,2-Trifluoroethane	ug/l	NS	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	na	na	na
1,1,2-Trichloroethane	ug/l	NS	1	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	na	na	na
1,1-Dichloroethane	ug/l	NS	**5**	1 U	1 U	1 U	1 U	**79**	1 U	**3.9**	1 U	1 U	1 U	na	na	na
1,1-Dichloroethene	ug/l	NS	**5**	1 U	1 U	1 U	1 U	**2.2**	1 U	**1.7**	1 U	1 U	1 U	na	na	na
1,2,4-Trichlorobenzene	ug/l	NS	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	na	na	na
1,2,4-Trimethylbenzene	ug/l	NS	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	na	na	na
1,2-Dibromo-3-Chloropropane	ug/l	NS	0.04	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	na	na	na
1,2-Dibromoethane (Ethylene Dibromide)	ug/l	NS	0.0006	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	na	na	na
1,2-Dichlorobenzene	ug/l	NS	3	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	na	na	na
1,2-Dichloroethane	ug/l	NS	0.6	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	na	na	na
1,2-Dichloropropane	ug/l	NS	1	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	na	na	na
1,3,5-Trimethylbenzene (Mesitylene)	ug/l	NS	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	na	na	na
1,3-Dichlorobenzene	ug/l	NS	3	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	na	na	na
1,4-Dichlorobenzene	ug/l	NS	3	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	na	na	na
2-Hexanone	ug/l	50	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	na	na	na
Acetone	ug/l	50	NS	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	na	na	na
Benzene	ug/l	NS	1	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	na	na	na
Bromodichloromethane	ug/l	50	NS	1 U	**0.53 J**	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	na	na	na
Bromoform	ug/l	50	NS	1 UJ	1 U	1 UJ	1 UJ	1 UJ	1 U	1 U	1 UJ	1 UJ	1 U	na	na	na
Bromomethane	ug/l	NS	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	na	na	na
Carbon Disulfide	ug/l	60	NS	1 U	1 U	1 U	1 U	1 U	**0.19 J**	1 U	1 U	**0.21 J**	1 U	na	na	na
Carbon Tetrachloride	ug/l	NS	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	na	na	na
Chlorobenzene	ug/l	NS	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	na	na	na
Chloroethane	ug/l	NS	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	na	na	na
Chloroform	ug/l	NS	7	1 U	2.1	**0.73 J**	**0.88 J**	1 U	**0.64 J**	**0.42 J**	**0.66 J**	**0.63 J**	1 U	na	na	na
Chloromethane	ug/l	NS	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	na	na	na
Cis-1,2-Dichloroethylene	ug/l	NS	**5**	1 U	1 U	1 U	1 U	1 U	1 U	**2.9**	1 U	1 U	1 U	na	na	na
Cis-1,3-Dichloropropene	ug/l	NS	0.4	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	na	na	na
Cyclohexane	ug/l	NS	NS	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	na	na	na
Cymene	ug/l	NS	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	na	na	na
Dibromochloromethane	ug/l	50	NS	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	na	na	na
Dichlorodifluoromethane	ug/l	NS	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	na	na	na
Ethylbenzene	ug/l	NS	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	na	na	na
Isopropylbenzene (Cumene)	ug/l	NS	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	na	na	na
Methyl Acetate	ug/l	NS	NS	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	na	na	na
Methyl Ethyl Ketone (2-Butanone)	ug/l	50	NS	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	na	na	na
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	ug/l	NS	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	na	na	na
Methylcyclohexane	ug/l	NS	NS	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	na	na	na
Methylene Chloride	ug/l	NS	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	na	na	na
Naphthalene	ug/l	10	NS	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	na	na	na
N-Butylbenzene	ug/l	NS	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	na	na	na
N-Propylbenzene	ug/l	NS	50	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	na	na	na
Sec-Butylbenzene	ug/l	NS	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	na	na	na
Styrene	ug/l	NS	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	na	na	na
T-Butylbenzene	ug/l	NS	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	na	na	na
Tert-Butyl Methyl Ether	ug/l	10	NS	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	na	na	na
Tetrachloroethylene (PCE)	ug/l	NS	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	na	na	na
Toluene	ug/l	NS	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	na	na	na
Trans-1,2-Dichloroethene	ug/l	NS	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	na	na	na
Trans-1,3-Dichloropropene	ug/l	NS	0.4	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	na	na	na
Trichloroethylene (TCE)	ug/l	NS	**5**	1 U	**15**	1 U	**3.3**	**23**	**6.1**	**55**	**5.1**	1 U	1 U	na	na	na
Trichlorofluoromethane	ug/l	NS	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	na	na	na
Vinyl Chloride	ug/l	NS	2	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	na	na	na
Xylenes	ug/l	NS	5	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	na	na	na

Notes and Abbreviations
ng/L - nanograms per liter
mg/L - milligrams per liter
U - Compound not detected
J - Estimated value
N - Primary sample
FD - Field duplicate sample
na - Sample not analyzed for this parameter
NS - No standard
Bold value indicates detected value

Shade cell indiicates exceedanc
NYSDEC TOGS111 - Standards

Table 11
Analytical Results for VOCs, SVOCs, Pesticides, PCBs, Metals and Cyanide for Groundwater Samples from Monitoring Wells
Former Oak-Mitsui - First Street

Analyte	Unit	NYDEC TOGS111 GA GUIDANCE	NYDEC TOGS111 GA STANDARD	Location ID / Sample ID / Sample Date / Sample Type / Validated - Y/N / Depth											
				FS-MW-009C FS-MW-009C (97.3)(07232019) 7/23/2019 N Y 97.3	FS-MW-011A FS-MW-011A 18.5)-07242019 7/24/2019 N Y 18.5	FS-MW-012A FS-MW-012A (12.5)(07232019) 7/23/2019 N Y 12.5	FS-MW-012B FS-MW-12B (45)(07232019) 7/23/2019 N Y 45	FS-MW-012C FS-MW-012C (62.5)(07232019) 7/23/2019 N Y 62.5	FS-MW-013A FS-MW-13A (15.5)-07222019 7/22/2019 N Y 15.5	FS-MW-013B FS-MW-13B (30.5)-07222019 7/22/2019 N Y 30.5	FS-MW-1 FS-MW-1 (17.75)(07232019) 7/23/2019 N Y 17.75	FS-MW-3 FS-MW-3 (14.25)(07232019) 7/23/2019 N Y 14.25	FS-MW-4 FS-MW-4 (13.57)(07252019 7/25/2019 N Y 13.57	FS-TMW-001 FS-TMW-001 (15)-07222019 7/22/2019 N Y 15	FS-TMW-003 FS-TMW-003 (18.5)-07222019 7/22/2019 N Y 18.5	FS-TMW-004 FS-TMW-004 (9.5)-07222019 7/22/2019 N Y 9.5
Semivolatile Organic Compounds (SVOCs) by USEPA Method 8270D SIM-ID															
1,4-Dioxane (P-Dioxane)	ug/l	NS	NS	0.67 U	0.2 U	0.2 U	0.2 U	**2.8 J**	**0.36**	**0.55**	**0.24**	0.2 U	0.2 U	na	na	na
Semivolatile Organic Compounds (SVOCs) by USEPA Method 8270D															
2,4,5-Trichlorophenol	ug/l	NS	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	na	na	na
2,4,6-Trichlorophenol	ug/l	NS	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	na	na	na
2,4-Dichlorophenol	ug/l	NS	1	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	na	na	na
2,4-Dimethylphenol	ug/l	50	1	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	na	na	na
2,4-Dinitrophenol	ug/l	NS	1	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	na	na	na
2,4-Dinitrotoluene	ug/l	NS	5	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	na	na	na
2,6-Dinitrotoluene	ug/l	NS	5	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	na	na	na
2-Chloronaphthalene	ug/l	10	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	na	na	na
2-Chlorophenol	ug/l	NS	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	na	na	na
2-Methylnaphthalene	ug/l	NS	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	na	na	na
2-Methylphenol (O-Cresol)	ug/l	NS	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	na	na	na
2-Nitroaniline	ug/l	NS	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	na	na	na
2-Nitrophenol	ug/l	NS	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	na	na	na
3,3'-Dichlorobenzidine	ug/l	NS	5	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	na	na	na
3-Nitroaniline	ug/l	NS	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	na	na	na
4,6-Dinitro-2-Methylphenol	ug/l	NS	NS	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	na	na	na
4-Bromophenyl Phenyl Ether	ug/l	NS	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	na	na	na
4-Chloro-3-Methylphenol	ug/l	NS	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	na	na	na
4-Chloroaniline	ug/l	NS	5	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	na	na	na
4-Chlorophenyl Phenyl Ether	ug/l	NS	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	na	na	na
4-Methylphenol (P-Cresol)	ug/l	NS	NS	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	na	na	na
4-Nitroaniline	ug/l	NS	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	na	na	na
4-Nitrophenol	ug/l	NS	NS	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	na	na	na
Acenaphthene	ug/l	20	20	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	na	na	na
Acenaphthylene	ug/l	NS	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	na	na	na
Acetophenone	ug/l	NS	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	na	na	na
Anthracene	ug/l	50	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	na	na	na
Atrazine	ug/l	NS	7.5	5 UJ	5 U	5 U	5 UJ	5 U	5 U	5 U	5 UJ	5 UJ	5 U	na	na	na
Benzaldehyde	ug/l	NS	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	na	na	na
Benzo(A)Anthracene	ug/l	0.002	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	na	na	na
Benzo(A)Pyrene	ug/l	NS	0	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	na	na	na
Benzo(B)Fluoranthene	ug/l	0.002	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	na	na	na
Benzo(G,H,I)Perylene	ug/l	NS	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	na	na	na
Benzo(K)Fluoranthene	ug/l	0.002	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	na	na	na
Benzyl Butyl Phthalate	ug/l	50	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	na	na	na
Biphenyl (Diphenyl)	ug/l	NS	5	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	na	na	na
Bis(2-Chloroethoxy) Methane	ug/l	NS	5	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	na	na	na
Bis(2-Chloroethyl) Ether (2-Chloroethyl Ether)	ug/l	NS	1	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	na	na	na
Bis(2-Chloroisopropyl) Ether	ug/l	NS	5	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	na	na	na
Bis(2-Ethylhexyl) Phthalate	ug/l	NS	**5**	**11**	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	na	na	na
Caprolactam	ug/l	NS	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	na	na	na
Carbazole	ug/l	NS	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	na	na	na
Chrysene	ug/l	0.002	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	na	na	na
Dibenz(A,H)Anthracene	ug/l	NS	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	na	na	na
Dibenzofuran	ug/l	NS	NS	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	na	na	na
Diethyl Phthalate	ug/l	50	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	na	na	na
Dimethyl Phthalate	ug/l	50	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	na	na	na
Di-N-Butyl Phthalate	ug/l	NS	50	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	na	na	na
Di-N-Octylphthalate	ug/l	50	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	na	na	na
Fluoranthene	ug/l	50	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	na	na	na
Fluorene	ug/l	50	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	na	na	na
Hexachlorobenzene	ug/l	NS	0.04	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	na	na	na
Hexachlorobutadiene	ug/l	NS	0.5	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	na	na	na
Hexachlorocyclopentadiene	ug/l	NS	5	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	na	na	na
Hexachloroethane	ug/l	NS	5	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	na	na	na
Indeno(1,2,3-C,D)Pyrene	ug/l	0.002	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	na	na	na
Isophorone	ug/l	50	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	na	na	na
Naphthalene	ug/l	10	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	na	na	na
Nitrobenzene	ug/l	NS	0.4	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	na	na	na
N-Nitrosodi-N-Propylamine	ug/l	NS	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	na	na	na
N-Nitrosodiphenylamine	ug/l	50	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	na	na	na
Pentachlorophenol	ug/l	NS	1	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	na	na	na
Phenanthrene	ug/l	50	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	na	na	na
Phenol	ug/l	NS	1	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	na	na	na
Pyrene	ug/l	50	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	na	na	na

Notes and Abbreviations
ng/L - nanograms per liter
mg/L - milligrams per liter
U - Compound not detected
J - Estimated value
N - Primary sample
FD - Field duplicate sample
na - Sample not analyzed for this parameter
NS - No standard
Bold value indicates detected value

Shade cell indiicates exceedanc
NYSDEC TOGS111 - Standards

Table 12
Summary of Oil Sample Analytical Results
Former Oak Mitsui - 80 First Street Property

	Location ID	WC-19FS	WC-22FS
	Sample Date	6/11/2019	7/15/2019
	Sample Type	WC	WC
	Validated - Y/N	N	N
Analyte	**Unit**		
E537-LL			
NEtFOSAA	mg/kg	-	*0.0097 U*
NMeFOSAA	mg/kg	-	*0.0097 U*
Perfluorobutanesulfonic acid (PFBS)	mg/kg	-	*0.0097 U*
Perfluorobutanoic Acid	mg/kg	-	*0.0097 U*
Perfluorodecane Sulfonic Acid	mg/kg	-	*0.0097 U*
Perfluorodecanoic acid (PFDA)	mg/kg	-	*0.0097 U*
Perfluorododecanoic acid (PFDoA)	mg/kg	-	*0.0097 U*
Perfluoroheptane Sulfonate (PFHPS)	mg/kg	-	*0.0097 U*
Perfluoroheptanoic acid (PFHpA)	mg/kg	-	*0.0097 U*
Perfluorohexanesulfonic acid (PFHxS)	mg/kg	-	*0.0097 U*
Perfluorohexanoic acid (PFHxA)	mg/kg	-	*0.0097 U*
Perfluorononanoic acid (PFNA)	mg/kg	-	*0.0097 U*
Perfluorooctane Sulfonamide (FOSA)	mg/kg	-	*0.0097 U*
Perfluorooctanesulfonic acid (PFOS)	mg/kg	-	*0.0024 U*
Perfluorooctanoic acid (PFOA)	mg/kg	-	**0.0016**
Perfluoropentanoic Acid (PFPeA)	mg/kg	-	*0.0097 U*
Perfluorotetradecanoic acid (PFTA)	mg/kg	-	*0.0097 U*
Perfluorotridecanoic Acid (PFTriA)	mg/kg	-	*0.0097 U*
Perfluoroundecanoic Acid (PFUnA)	mg/kg	-	*0.0097 U*
SODIUM 1H,1H,2H,2H-PERFLUORODECANE SULFONATE (8	mg/kg	-	*0.0097 U*
SODIUM 1H,1H,2H,2H-PERFLUOROOCTANE SULFONATE (6	mg/kg	-	*0.0097 U*
NY310-13			
Gasoline Components	mg/kg	*200 U*	-
Kerosene	mg/kg	*500 U*	-
Motor Oils	mg/kg	**200,000**	-
PHC As #2 Fuel Oils C10-C23 #2 Diesel, #2 Fuel Oil	mg/kg	*500 U*	-
PHC As Heavy/Residual Fuel Oils Fuel Oils #4	mg/kg	*500 U*	-
PHC As Heavy/Residual Fuel Oils Fuel Oils #6	mg/kg	*500 U*	-
	mg/kg	**130,000**	-
SW6010C, Total			
Aluminum	mg/kg	*9.9 U*	-
Antimony	mg/kg	*14.8 U*	-
Arsenic	mg/kg	*2 U*	-
Barium	mg/kg	**0.27 J**	-
Beryllium	mg/kg	*0.2 U*	-
Cadmium	mg/kg	*0.2 U*	-
Calcium	mg/kg	**58.1 B**	-
Chromium, Total	mg/kg	*0.49 U*	-
Cobalt	mg/kg	*0.49 U*	-
Copper	mg/kg	**1.0 B**	-
Iron	mg/kg	**16.4 B**	-
Lead	mg/kg	*0.99 U*	-
Magnesium	mg/kg	**11.4 J**	-
Manganese	mg/kg	**2.7 B**	-
Nickel	mg/kg	*4.9 U*	-
Potassium	mg/kg	*29.6 U*	-
Selenium	mg/kg	*3.9 U*	-
Silver	mg/kg	*0.59 U*	-
Sodium	mg/kg	**51.9 J**	-
Thallium	mg/kg	*5.9 U*	-
Vanadium	mg/kg	*0.49 U*	-
Zinc	mg/kg	**0.69 JB**	-
SW7471B			

	Location ID	WC-19FS	WC-22FS
	Sample Date	6/11/2019	7/15/2019
	Sample Type	WC	WC
	Validated - Y/N	N	N
Analyte	**Unit**		
Mercury	mg/kg	*0.02 U*	-
SW8081B			
Aldrin	mg/kg	*6.7 U*	-
Alpha Bhc (Alpha Hexachlorocyclohexane)	mg/kg	*6.7 U*	-
Alpha Endosulfan	mg/kg	*6.7 U*	-
Beta Bhc (Beta Hexachlorocyclohexane)	mg/kg	*6.7 U*	-
Beta Endosulfan	mg/kg	*6.7 U*	-
cis-Chlordane	mg/kg	*6.7 U*	-
Delta BHC (Delta Hexachlorocyclohexane)	mg/kg	*6.7 U*	-
Dieldrin	mg/kg	*6.7 U*	-
Endosulfan Sulfate	mg/kg	*6.7 UTH*	-
Endrin	mg/kg	*6.7 U*	-
Endrin Aldehyde	mg/kg	*6.7 U*	-
Endrin Ketone	mg/kg	*6.7 U*	-
Gamma Bhc (Lindane)	mg/kg	*6.7 U*	-
Heptachlor	mg/kg	*6.7 U*	-
Heptachlor Epoxide	mg/kg	*6.7 U*	-
Methoxychlor	mg/kg	*6.7 U*	-
P,P'-DDD	mg/kg	*6.7 U*	-
P,P'-DDE	mg/kg	*6.7 U*	-
P,P'-DDT	mg/kg	*6.7 U*	-
Toxaphene	mg/kg	*6.7 U*	-
trans-Chlordane	mg/kg	*6.7 U*	-
SW8082A			
PCB-1016 (Aroclor 1016)	mg/kg	*4.2 U*	-
PCB-1221 (Aroclor 1221)	mg/kg	*4.2 U*	-
PCB-1232 (Aroclor 1232)	mg/kg	*4.2 U*	-
PCB-1242 (Aroclor 1242)	mg/kg	*4.2 U*	-
PCB-1248 (Aroclor 1248)	mg/kg	*4.2 U*	-
PCB-1254 (Aroclor 1254)	mg/kg	*4.2 U*	-
PCB-1260 (Aroclor 1260)	mg/kg	*4.2 U*	-
SW8260C			
1,1,1-Trichloroethane (TCA)	mg/kg	*0.1 U*	-
1,1,2,2-Tetrachloroethane	mg/kg	*0.1 U*	-
1,1,2-Trichloro-1,2,2-Trifluoroethane	mg/kg	*0.1 U*	-
1,1,2-Trichloroethane	mg/kg	*0.1 U*	-
1,1-Dichloroethane	mg/kg	*0.1 U*	-
1,1-Dichloroethene	mg/kg	*0.1 U*	-
1,2,4-Trichlorobenzene	mg/kg	*0.1 UT*	-
1,2,4-Trimethylbenzene	mg/kg	*0.1 U*	-
1,2-Dibromo-3-Chloropropane	mg/kg	*0.1 U*	-
1,2-Dibromoethane (Ethylene Dibromide)	mg/kg	*0.1 U*	-
1,2-Dichlorobenzene	mg/kg	*0.1 U*	-
1,2-Dichloroethane	mg/kg	*0.1 U*	-
1,2-Dichloropropane	mg/kg	*0.1 U*	-
1,3,5-Trimethylbenzene (Mesitylene)	mg/kg	*0.1 U*	-
1,3-Dichlorobenzene	mg/kg	*0.1 U*	-
1,4-Dichlorobenzene	mg/kg	*0.1 U*	-
2-Hexanone	mg/kg	*0.5 U*	-
Acetone	mg/kg	*0.5 U*	-
Benzene	mg/kg	*0.1 U*	-
Bromodichloromethane	mg/kg	*0.1 U*	-
Bromoform	mg/kg	*0.1 U*	-
Bromomethane	mg/kg	*0.1 U*	-
Carbon Disulfide	mg/kg	*0.1 U*	-
Carbon Tetrachloride	mg/kg	*0.1 U*	-
Chlorobenzene	mg/kg	*0.1 U*	-
Chloroethane	mg/kg	*0.1 U*	-
Chloroform	mg/kg	*0.1 U*	-
Chloromethane	mg/kg	*0.1 U*	-

	Location ID	WC-19FS	WC-22FS
	Sample Date	6/11/2019	7/15/2019
	Sample Type	WC	WC
	Validated - Y/N	N	N
Analyte	**Unit**		
Cis-1,2-Dichloroethylene	mg/kg	*0.1 U*	-
Cis-1,3-Dichloropropene	mg/kg	*0.1 U*	-
Cyclohexane	mg/kg	*0.1 U*	-
Cymene	mg/kg	*0.1 U*	-
Dibromochloromethane	mg/kg	*0.1 U*	-
Dichlorodifluoromethane	mg/kg	*0.1 U*	-
Ethylbenzene	mg/kg	*0.1 U*	-
Isopropylbenzene (Cumene)	mg/kg	*0.1 U*	-
Methyl Acetate	mg/kg	*0.5 UTL*	-
Methyl Ethyl Ketone (2-Butanone)	mg/kg	*0.5 U*	-
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	mg/kg	*0.5 U*	-
Methylcyclohexane	mg/kg	*0.1 U*	-
Methylene Chloride	mg/kg	*0.1 U*	-
Naphthalene	mg/kg	*0.1 UT*	-
N-Butylbenzene	mg/kg	*0.1 U*	-
N-Propylbenzene	mg/kg	*0.1 U*	-
Sec-Butylbenzene	mg/kg	*0.1 U*	-
Styrene	mg/kg	*0.1 U*	-
T-Butylbenzene	mg/kg	*0.1 U*	-
Tert-Butyl Methyl Ether	mg/kg	*0.1 U*	-
Tetrachloroethylene (PCE)	mg/kg	*0.1 U*	-
Toluene	mg/kg	*0.1 U*	-
Trans-1,2-Dichloroethene	mg/kg	*0.1 U*	-
Trans-1,3-Dichloropropene	mg/kg	*0.1 U*	-
Trichloroethylene (TCE)	mg/kg	*0.1 U*	-
Trichlorofluoromethane	mg/kg	*0.1 U*	-
Vinyl Chloride	mg/kg	*0.1 U*	-
Xylenes	mg/kg	*0.2 U*	-
SW8270D			
1,4-Dioxane (P-Dioxane)	mg/kg	*1700 U*	-
2,4,5-Trichlorophenol	mg/kg	*1400 U*	-
2,4,6-Trichlorophenol	mg/kg	*1,400 UTH*	-
2,4-Dichlorophenol	mg/kg	*1,400 UTHT*	-
2,4-Dimethylphenol	mg/kg	*1,400 UTH*	-
2,4-Dinitrophenol	mg/kg	*14000 U*	-
2,4-Dinitrotoluene	mg/kg	*1,400 UTH*	-
2,6-Dinitrotoluene	mg/kg	*1,400 UTHT*	-
2-Chloronaphthalene	mg/kg	*1,400 UTH*	-
2-Chlorophenol	mg/kg	*1400 U*	-
2-Methylnaphthalene	mg/kg	*1400 U*	-
2-Methylphenol (O-Cresol)	mg/kg	*1400 U*	-
2-Nitroaniline	mg/kg	*2,800 UTH*	-
2-Nitrophenol	mg/kg	*1400 U*	-
3,3'-Dichlorobenzidine	mg/kg	*2,800 UTH*	-
3-Nitroaniline	mg/kg	*2800 U*	-
4,6-Dinitro-2-Methylphenol	mg/kg	*2,800 UTHT*	-
4-Bromophenyl Phenyl Ether	mg/kg	*1,400 UTHT*	-
4-Chloro-3-Methylphenol	mg/kg	*1,400 UTH*	-
4-Chloroaniline	mg/kg	*1400 U*	-
4-Chlorophenyl Phenyl Ether	mg/kg	*1,400 UTH*	-
4-Methylphenol (P-Cresol)	mg/kg	*2800 U*	-
4-Nitroaniline	mg/kg	*2800 U*	-
4-Nitrophenol	mg/kg	*2800 U*	-
Acenaphthene	mg/kg	*1,400 UTH*	-
Acenaphthylene	mg/kg	*1,400 UTH*	-
Acetophenone	mg/kg	*1,400 UTH*	-
Anthracene	mg/kg	*1,400 UTH*	-
Atrazine	mg/kg	*1400 U*	-
Benzaldehyde	mg/kg	*1400 U*	-
Benzo(A)Anthracene	mg/kg	*1,400 UT*	-
Benzo(A)Pyrene	mg/kg	*1,400 UT*	-
Benzo(B)Fluoranthene	mg/kg	*1,400 UT*	-

	Location ID	WC-19FS	WC-22FS
	Sample Date	6/11/2019	7/15/2019
	Sample Type	WC	WC
	Validated - Y/N	N	N
Analyte	**Unit**		
Benzo(G,H,I)Perylene	mg/kg	*1,400 UT*	-
Benzo(K)Fluoranthene	mg/kg	*1,400 UTH*	-
Benzyl Butyl Phthalate	mg/kg	*1,400 UT*	-
Biphenyl (Diphenyl)	mg/kg	*1,400 UTH*	-
Bis(2-Chloroethoxy) Methane	mg/kg	*1400 U*	-
Bis(2-Chloroethyl) Ether (2-Chloroethyl Ether)	mg/kg	*1400 U*	-
Bis(2-Chloroisopropyl) Ether	mg/kg	*1400 U*	-
Bis(2-Ethylhexyl) Phthalate	mg/kg	*1,400 UT*	-
Caprolactam	mg/kg	*1400 U*	-
Carbazole	mg/kg	*1,400 UTH*	-
Chrysene	mg/kg	*1,400 UTH*	-
Dibenz(A,H)Anthracene	mg/kg	*1,400 UTHT*	-
Dibenzofuran	mg/kg	*1,400 UTH*	-
Diethyl Phthalate	mg/kg	*1,400 UTH*	-
Dimethyl Phthalate	mg/kg	*1,400 UTH*	-
Di-N-Butyl Phthalate	mg/kg	*1,400 UTH*	-
Di-N-Octylphthalate	mg/kg	*1400 U*	-
Fluoranthene	mg/kg	*1,400 UTH*	-
Fluorene	mg/kg	*1,400 UTHT*	-
Hexachlorobenzene	mg/kg	*1,400 UTHT*	-
Hexachlorobutadiene	mg/kg	*1,400 UTH*	-
Hexachlorocyclopentadiene	mg/kg	*1400 U*	-
Hexachloroethane	mg/kg	*1400 U*	-
Indeno(1,2,3-C,D)Pyrene	mg/kg	*1,400 UTH*	-
Isophorone	mg/kg	*1,400 UTHT*	-
Naphthalene	mg/kg	*1400 U*	-
Nitrobenzene	mg/kg	*1,400 UTH*	-
N-Nitrosodi-N-Propylamine	mg/kg	*1,400 UTH*	-
N-Nitrosodiphenylamine	mg/kg	*1,400 UT*	-
Pentachlorophenol	mg/kg	*2,800 UTH*	-
Phenanthrene	mg/kg	*1,400 UTH*	-
Phenol	mg/kg	*1400 U*	-
Pyrene	mg/kg	*1400 U*	-
SW9012			
Cyanide	mg/kg	*0.01 U*	-
WBLACK			
Total Organic Carbon	mg/kg	**79,900**	-

Notes:

< = Compound not detected at concentrations above the laboratory reporting detection limit.
The laboratory reporting detection limit is shown.
Empty cells = not analyzed
WC = Waste Characterization
Units are in mg/kg = MILLIGRAMS PER KILOGRAM

Table 13
Summary of Analytical Methods
Former Oak Mitsui- 80 First

Analytical Parameter	Matrix	Method Number	Method Title	Method Reference
PFAS	Aqueous	537 (modified)	Determination of Selected Perfluorinated Alkyl Acids in Drinking Water by Solid Phase Extraction and Liquid Chromatography/Tandem Mass Spectrometry (LC/MS/MS) Version 1.1	1
VOCs	Aqueous	8260C	Volatile Organic Compounds by Gas Chromatography/ Mass Spectrometry	2
SVOCs	Aqueous	8270D	Semivolatile Organic Compounds by Gas Chromatography/ Mass Spectrometry	2
SVOCs	Aqueous	8270DSIM	Semivolatile Organic Compounds by Gas Chromatography/ Mass Spectrometry (Selected Ion Monitoring)	2
Pest	Aqueous	8081B	Organochlorine Pesticides by Gas Chromatography	2
PCBs	Aqueous	8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	2
Metals	Aqueous	6010C	Inductively Coupled Plasma-Optical Emission Spectrometry (ICP-AES)	2
Mercury	Aqueous	7470A	Mercury in Liquid Waste (Manual Cold-Vapor Technique)	2
Cyanide	Aqueous	9012B	Total and Amenable Cyanide (Automated Colorimetric, With Off-Line Distillation)	2
Cyanide	Aqueous	SM4500-CN-I	Weak Acid Dissociable Cyanide (Automated Colorimetric, With Off-Line Distillation)	3
TOC	Aqueous	9060	Determination of Total Organic Carbon	2
pH	Aqueous	9040C	pH electrometric Measurement	2

Notes and Abbreviations

1 - Methods for the Determination of Organic Compounds in Drinking Water – Supplement III
2 - USEPA Test Methods for Evaluating Solid Waste: Physical/Chemical Methods (SW-846)
3 - American Society for Testing and Materials. Research Rep. D2036:19-1131

PFAS - Per- and Polyfluoroalkyl Substances
VOCs - Volatile Organic Compounds
SVOCs - Semivolatile Organic Compounds
Pesticides - Pesticide Organic Compounds
PCBs - Polychlorinated Biphenyl Compounds
TOC - Total Organic Carbon

TABLE 14

Oak Mitsui, 80 First Street, Hoosick Falls, NY
Site Characterization Report
Summary of Field Duplicate Samples – Relative Percent Difference (RPD)
(RPD Values Greater Than 20%)

SOIL-S142 and SOIL-DUP103

Analyte	SOIL-S142 Concentration (mg/kg)	SOIL-DUP103 Concentration (mg/kg)	% RPD
Mercury	0.1	0.14	33.3
Thallium	0.468 J	0.675 J	36.2
Perfluorooctanoic acid (PFOA)	0.000973 J	0.000733 J	28.1

SOIL-SC007(8'-12') and SOIL-DUP-SC001

Analyte	SOIL-SC007(8'-12') Concentration (mg/kg)	SOIL-DUP-SC001 Concentration (mg/kg)	% RPD
Selenium	0.655	0.277	81.1
1H,1H,2H,2H-Perfluorooctanesulfonic acid (6:2FTS)	0.33 J	1.19	113.2

SOIL-SC020(8'-12') and SOIL-DUP-SC002

Analyte	SOIL-SC020(8'-12') Concentration (mg/kg)	SOIL-DUP-SC002 Concentration (mg/kg)	% RPD
Aluminum	5,150	6,710	26.3
Beryllium	0.162 J	0.246 J	41.2
Cadmium	1.92	1.33	36.3
Copper	156	76	69.0
Iron	79,600	50,100	45.5
Lead	242	36.7	147.3
Magnesium	1,730	2,610	40.6
Manganese	601	339	55.7
Mercury	0.081	0.108	28.6
Nickel	27.1	18.8	36.2
Vanadium	9.57	12	22.5
Zinc	628	150	122.9
Benzene	0.0029	0.058	181
Ethylbenzene	0.00032 J	0.018 J	193
Methylcyclohexane	0.00046 J	0.048 J	196
Toluene	0.0016	0.041 J	185
Perfluorooctanoic acid (PFOA)	0.000804	0.000636	23.3
2-Methylnaphthalene	1.5	5.7	116.7
2-Methylphenol	0.15 J	0.28 J	60.5
3-Methylphenol/4-Methylphenol	0.57	0.93 J	48
Acenaphthene	12	55	128.4
Acenaphthylene	8.6	27	103.4
Anthracene	2.9	100	188.7
Benzo(a)anthracene	46	150	106.1
Benzo(a)pyrene	40	120	100
Benzo(b)fluoranthene	49	150	101.5
Benzo(g,h,i)perylene	23	66	96.6
Benzo(k)fluoranthene	15	32	72.3
Biphenyl	0.84	4.6	138.2
Carbazole	3	11	114.3
Chrysene	36	120	107.7
Dibenzo(a,h)anthracene	4.7	1.6	98.4
Dibenzofuran	5.6	29	135.3
Fluoranthene	120	390	105.9
Fluorene	12	59	132.4
Indeno(1,2,3-cd)pyrene	27	77	96.2
Naphthalene	6.1	16	89.6
Phenanthrene	74	350	130.2
Phenol	0.49	0.78 J	45.7
Pyrene	90	300	107.7

SOIL-SC032(4'-8') and SOIL-DUP104

Analyte	SOIL-SC032(4'-8') Concentration (mg/kg)	SOIL-DUP104 Concentration (mg/kg)	% RPD
Arsenic	5.04	7.35	37.3
Perfluoroheptanoic acid (PFHpA)	0.134 J	0.086 J	43.6